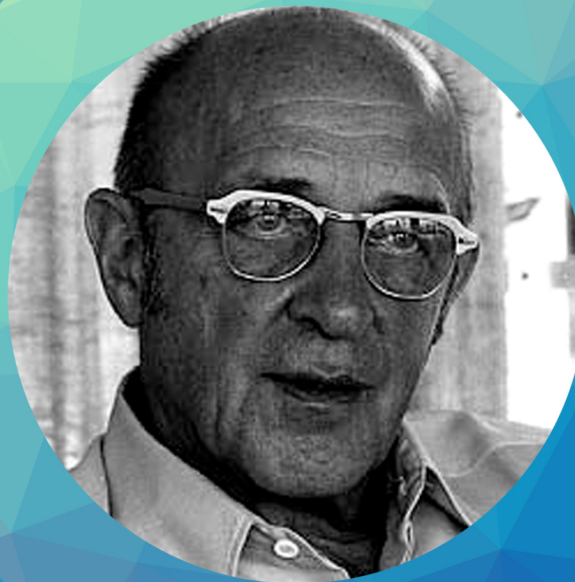




The International Journal of
INDIAN PSYCHOLOGY



Person of the Month
Carl R. Rogers (1902-1987)

Editor in Chief:
Prof. Suresh M. Makvana, PhD
Editor:
Ankit P. Patel

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Ankit P. Patel

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Message from the Desk of Editor

It gives me great opportunity to present the forth volume of IJIP, the measure of progress. The concept of a Journal of Indian Psychology has been developing for over few years and finally another issue has come to fruition. From this edition we have ISSN for online 2348-5396 and print 2349-3429, ZDB-No.: 2775190-9, IDN: 1052425984, CODEN: IJIPD3, OCLC: 882110133, WorldCat Accession: (DE-600) ZDB2775190-9, ResearchID: P-8455-2015 in our publication. RedShine Publication, Inc is grateful to the contributors for making this Journal a reality.

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The Journal would publish peer-reviewed original research papers, case reports, systematic reviews and meta-analysis. Editorial, Guest Editorial, Viewpoint and letter to the editor are solicited by the editorial board. Large numbers of research papers were received from all over the globe for publication and we thank each one of the authors personally for soliciting the journal. We also extend our heartfelt thanks to the reviewers and members of the editorial board who so carefully perused the papers and carried out justified evaluation. Based on their evaluation, we could accept some research papers for this issue across the disciplines. We are certain that these papers will provide qualitative information and thoughtful ideas to our accomplished readers. We thank all the readers profusely who conveyed their appreciation on the quality and content of the journal and expressed their best wishes for future issues. We convey our deep gratitude to the Editorial Board, Advisory Board and all office bearers who have made possible the publication of this journal in the planned time frame.

We humbly invite all the authors and their professional colleagues to submit their research papers for consideration for publication in our upcoming issues as per the “Scope and Guidelines to Authors” given at the website. Any comments and observations for the improvement of the journal are most welcome.

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Person of the Month: Carl R. Rogers (1902-1987)

Ankit Patel¹

Born	January 8, 1902 Oak Park, Illinois, U.S.
Died	February 4, 1987 San Diego, California, U.S.
Citizenship	American
Known for	Client-centered therapy, Student-centered learning, Rogerian argument
Fields	Phenomenal field, Theoretical works



Carl Ransom Rogers was an American psychologist and among the founders of the humanistic approach in psychology. The person-centered approach, his own unique approach to understanding personality and human relationships. Throughout his career he dedicated himself to humanistic psychology and is well known for his theory of personality development. He began developing his humanistic concept while working with abused children. Rogers attempted to change the world of psychotherapy when he boldly claimed that psychoanalytic, experimental, and behavioral therapists were preventing their clients from ever reaching self-realization and self-growth due to their authoritative analysis. He argued that therapists should allow patients to discover the solution for themselves. Rogers received wide acclaim for his theory and was awarded various high honors.

Dr. Carl R. Rogers was born in Oak Park, Illinois, in 1902. He received his B.A. from the University of Wisconsin in 1924, a M.A. from Columbia University in 1928, and his Ph.D. in psychotherapy from Columbia University in 1931. In 1940 Rogers became professor of psychology at Ohio State University where he stayed until 1945. He then transferred to the University of Chicago in 1945 where he served as the professor of psychology and the executive secretary at the Counseling Center. In 1957 he took a joint position in the departments of

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Person of the Month: Carl R. Rogers (1902-1987)

psychology and psychiatry at the University of Wisconsin. After this Rogers traveled to a variety of colleges.

Rogers is a leading figure within psychotherapy and developed a breaking theory of personality development. This theory developed as a result of Rogers frustration with the authoritative analysis that therapists were imposing upon their patients. He is well known for his emphasis on personal awareness and allowing clients to have increasing flexibility in determining the treatment. Rogers believed that it was important for the individual to learn to understand himself and make independent choices that are significant in understanding the problem.

ROGERS' THEORY

Theory of Personality Development Rogers' therapy was an extension of his theory of personality development and was known as client-centered therapy, since the basis of the therapy was designed around the client. According to Rogers each person has within them the inherent tendency to continue to grow and develop. As a result of this the individual's self-esteem and self-actualization is continually influenced. This development can only be achieved through what Rogers refers to as "unconditional positive regard."

The element of free expression can also be illustrated in the case Mrs. L, and her ten- year- old son, Jim. During the first hour of the session the mother spent a full half-hour telling with intense feeling example after example of Jim's bad behavior. She tells of arguments with his sister, his refusal to dress himself, annoying tendencies such as humming at the table, bad behavior in school, and his refusal to help at home. Each one of her comments is highly critical of her son. Throughout the mothers talking the counselor makes no attempt to persuade the mother in feeling any other way about her son. Next, the son engages in play -therapy in which Jim makes a clay image and identifies it as his father. There is a great deal of dramatic play in which the boy shows his struggle in getting his father out of bed and the fathers resistance. Throughout this Jim knocks the clay figurines head off and crushes the body while shouting frantically. In both occurrences with the mother and her son the counselor allows the feelings to flow and does not try to block or alter them.

Another aspect of the therapy is that of positive action. Here once insight is achieved the actions that are taken are suited to the new insight that is gained. Thus, once Mrs. L has achieved a better emotional understanding of the relationship between herself and her son she is able to transfer that insight into actions which show the depth of her insight. She plans on giving Jim special affection, helping him to be more mature, and avoiding making the younger sister jealous. If such behavior had been suggested to her after the diagnosis of the case, she would have either rejected the suggestion or carried it out in a way that would almost certainly fail. Since it grew out of her own insight, she will be able to become a successful, mature mother.

Person of the Month: Carl R. Rogers (1902-1987)

The methodology of Rogers theory proved to be very successful within the case of Mrs. L and her son. This approach has helped millions of people since Rogers first developed it.

TIMELINE

1902 Born in Oak Park, Ill.
1924 Completed B.A., University of Wisconsin
1928 M.A., Columbia University
1931 Ph.D., Columbia University, Psychotherapy
1940 Ohio State University, Columbus, professor of psychology
1944 President of the American Association for Applied Psychology
1945 University of Chicago, Chicago, Ill., Professor of Psychology and executive secretary ,
Counseling Center.
1946 President of the American Psychological Association
1955 Nicholas Murray Butler Silver Medal
1956 First President of American Academy of Psychotherapist and special contribution award,
American Psychological Association
1957 professor in departments of psychology and psychiatry; University of Wisconsin
1960 member of executive committee, University of Wisconsin
1962 Fellow, Center for Advanced Study in the Behavioral Sciences
1964 selected as humanist of the year, American Humanist Association
1968 honorary doctorate, Gonzaga University
1971 D.H.L. , University of Santa Clara
1972 distinguished professional psychologist award, Division of Psychotherapy
1974 D.Sc. university of Cincinnati
1975 D.Ph. University of Hamburg and DS.Sc. University of Leiden
1978 D.Sc. Northwestern University
1984 Union for Experimenting Colleges and Universities, Cincinnati
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Exploring the Sri Lankan Teacher Attitudes Pertaining To Corporal Punishment against Their Knowledge and Perceived Skills Pertaining To Child Protection

Buddhiprabha D. D. Pathirana^{1*}

ABSTRACT

The present study explored the Sri Lankan pre/school teachers' (n = 365) knowledge, and perceived skills of child protection against their general attitudes pertaining to violence/ abuse as well as their specific attitudes pertaining corporal punishment using a four point rating scale. Results conveyed that while teachers' knowledge and perceived skills of child protection was high, teacher who favored corporal punishment as an acceptable mode of disciplinary strategy had higher knowledge (M = 32.1, S.D = 3.02) than those who did not (M = 31.29; S.D = 2.97), $t(363) = 2.634$, $p = .009$. Based on its findings, the study offers recommendation for teacher trainers and child protection practitioners.

Keywords: *Sri Lanka, Teachers, Attitudes, Corporal Punishment, Child Protection*

Corporal punishment was widely used and accepted all over the world. Today corporal punishment is illegal in many countries including Sri Lanka (Ministry of Education, 2008). However, studies convey that it is still being widely used as a form of discipline in Sri Lankan schools (Jayaweera, & Gunawardena, 2010; Perera, 2009; De Silva, 2001; de Silva, 2007), creating psychological and physical distress within students. In an era in which plethora of research studies and interventions pertaining to alternative forms of discipline are available the practice of corporal punishment is a questionable tactic. Hence, the aim of the present study was to find out whether the prevalence of corporal punishment practiced by the Sri Lankan teachers was due to the lack of knowledge and skills of its negative effects or whether is it due to attitudes they hold in favour of corporal punishment?

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Exploring the Sri Lankan Teacher Attitudes Pertaining To Corporal Punishment against Their Knowledge and Perceived Skills Pertaining To Child Protection

Corporal Punishment

Definitions of corporal punishment have evolved over time (Straus, 1991; Hyman, 1990; Straus, 1994; Straus & Donnelly, 2005), becoming more sensitive to the distress felt by the children, supported by recent evidence which strongly conveys that school corporal punishment is associated primarily with negative effects (Hyman, 1996; Society for Adolescent Medicine, 2003; de Silva, 2004; de Silva, 2007). Recent definitions of it refers corporal punishment as intentional application of physical pain as a method of changing behavior (Shumba, 2003) and includes such methods as hitting, slapping, spanking, punching, kicking, pinching, shaking using various objects such as wooden paddles, belts, sticks, electric cords or others (Grossman, Rauh & Riveira, 1995; Shumba, 2003).

The prevalence of corporal punishment is reported to be high (de Silva, 2007; Perera, 2009) in Sri Lanka. However, comparatively few have complained about it in the past due to the fact that physical punishments are to a large extent accepted by both children and adults in South Asia (de Silva, 2004; UNICEF, 2001). A study carried out by de Silva (2007) found a high prevalence and frequency of corporal punishment in a cross-sectional study of 1226 school children in Colombo. When de Silva (2004) surveyed 976 Sri Lankan students from 197 schools of seven provinces in Sri Lanka who answered a questionnaire pertaining to their experiences of corporal punishment, she found that sixty-two students (6.4%) experienced physical punishment by teachers during the preceding 4 weeks and 156 (16%) during the year. Those who witnessed physical punishment of other students during the preceding 4 weeks was 552 (56.6%) while 688 (70.5%) recalled witnessing such an event during the year. Also, when Perera (2009) explored the prevalence of physical and emotional abuse reported by late adolescent school children in southern Sri Lanka, using an anonymous questionnaires she found that almost one fifth of the males and females in the sample reported experiencing physical abuse at least a few times in the 3 months preceding the survey, while almost one third of the males and females in the sample have experienced emotional abuse at least a few times in the 3 months preceding the survey. Results of this study convey that school absenteeism, deliberate self-harm, substance use, and family conflict were associated with physical and emotional abuse.

These findings are not by any means different from the situation in other South Asian countries. Eighty three percent of the Afghanistan children interviewed said they had been slapped, kicked and caned at school. In Pakistan, corporal punishment prevails in more than 40 per cent of government schools and some 35 per cent of private schools (UNICEF, 2001).

In the cultural milieu of Sri Lanka, which spontaneously expects a child's obedience, corporal punishment may not seem uncommon or unusual disciplinary strategy (Jayaweera et al, 2010; De Silva, 2001; de Silva, 2007). Sri Lankan teachers may consider corporal punishment as a prevalent, frequent and favored mode of disciplinary strategy due to following factors 1. Past

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cultural prevalence and preference of teacher centered approach to teaching (De Silva, 2001; De Silva, De Soyza & Kannangara, 2000), 2. High student density in urban, popular schools due to parental preference, creating an inadequate teacher, child ratio in which classroom management has become a daunting, impossible and difficult task for teachers of such schools, 3. Past educational practices which made corporal punishment an integral part of schooling for most Sri Lankan teachers, during their student days due to its excessive usage (De Silva, 2001) making them its strong proponents, 4. Inadequate salaries received by the Sri Lankan teachers which might make them frustrated venting their frustration at students, 5. Absence of specific practice based training on positive discipline (Pathirana, 2006).

However, the effectiveness of corporal punishment as an appropriate disciplinary technique has always been questioned within international (Robinson, Funk, Beth, & Bush, 2005) as well as in national contexts (de Silva, 2001; 2007; de Silva, 2004). Studies have constantly pointed out the adverse physical, and psychological effects of corporal punishment on children (Robinson et al, 2005; Gershoff, 2002; de Silva, 2004; de Soyza, Newcomb & Rajapakse, 2008) as well as its negative long term effects (Robinson et al, 2005; Straus, 1991) such as delinquency in adolescence, spousal & child abuse and crime outside the family (Straus, 1991).

The results of a study carried out by de Silva (2007) conveyed that corporal punishment directly predicted to what extent a child would be maladjusted and that non-parent-to-child violence (i.e. domestic, school, peer and community violence) significantly affected this psychological impairment. De Silva (2004) found that Sri Lankan students who were physically punished by their teachers felt humiliated or angry because of the punishment. Students who witnessed physical punishment felt sorry for their friends, but justified the need to use it as a correctional method. After 10 years Pathirana (2014) came up with similar findings during qualitative in-depth interviews with Sri Lankan adolescents.

Though many research studies have explored the prevalence, antecedents, and effects of parental corporal punishment and its psychological consequences (de Soyza, 2008; Gershoff, 2002); very few seem to address the teacher practices, perceptions (Baginsky, 2003) or teacher attitudes pertaining to corporal punishment in Sri Lankan school settings (Pathirana, 2008).

On the other hand child maltreatment continues to be a national epidemic (Perera, Østbye, Ariyananda & Lelwala, 2009; Fernando, & Karunasekera, 2009; National Child Protection Authority, 2005). Therefore, it is important to gain insights of factors which contributes to corporal punishment which is categorized as a form of physical abuse (Holzer, & Lamont, 2013; WHO, 2000; UNICEF, 2000).

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As part of the multiagency approach to child protection the role of the teachers looms large. Knowledge and competence of child maltreatment and protection of the teachers has far reaching implications for children, as teachers are likely to be involved in a child protection issues in their career compared to other professionals. Within this context, the importance of investigating teachers' perceived knowledge and competence of child protection seems to be an urgent necessity. A study (de Silva, 2004) which explored the teacher attitudes pertaining to corporal punishment conveys that Sri Lankan teachers seem to fall into three groups pertaining to their attitudes on corporal punishment. These groups are teachers who favor and argue in support of physical punishment, and those who opposed it and those who favored it in the past, and regretted having used it. However, studies which explore the preschool teacher and school teacher attitudes against their knowledge and perceived skills seem to be nonexistent. Therefore, it is important to find out whether teacher practices of corporal punishment is due to inadequacy in knowledge and skills or due to the cultural milieu which seem to favor it.

METHODOLOGY

The aim of the present study was to explore the relationship between teacher attitudes pertaining to corporal punishment against their child protection knowledge and perceived skills of imparting child protection.

Participants were (227, 65.42% female and 120, 34.58% male) preschool teachers and school teachers between the age group of 23 to 60 years; from 12 districts in Sri Lanka who participated voluntarily. Survey completion took approximately twenty minutes, per individual. In order to optimize the results of the study, purposive sampling was used. Maximum variation, which allows the space to gather different types of information about the topic was utilized when selecting the participants. Experts in the areas of early childhood education and research methodology were consulted in order to compile a diverse list of participants.

Attitudes of the participants were measured by administering a questionnaire piloted and used by the author to measure teacher attitudes within pre/school teachers (Pathirana, 2008). The survey questionnaire was anonymous and comprised of 19 items to assess teacher knowledge of child protection (n = 10), perceived attitudes pertaining to corporal punishment (n= 01), general attitudes pertaining to violence abuse against children (n = 01) and perceived skills (n = 02). For this study, participants were asked to rate on a 4-point Likert scale (1 = Strongly Agree; 2 = Agree; 3 = Disagree; 4 = Strongly Disagree) conveying the extent to which they agree with the statements.

The frequencies and percentages of the teacher attitudes pertaining to corporal punishment against their perceived knowledge and skills of child protection awareness were calculated using SPSS statistical package. The teacher responses of strongly agree and agree for corporal

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punishment were considered as an attitude for corporal punishment whereas teacher responses of disagree and strongly disagree were considered as an attitude against corporal punishment.

RESULTS

Table 01 – Frequencies and percentages of teacher perceived knowledge against their attitudes pertaining to corporal punishment

Knowledge	Agree to Co Pu' (n = 235)		Disagree to Co Pu' (n = 130)		R.T*
	<i>f</i>	%	<i>f</i>	%	
21-25	08	2.2	02	.6	10
26-30	80	21.9	37	10.1	117
31-35	128	35.1	74	20.3	202
36-40	19	5.2	17	4.7	36

Note: N = 365; R.T = Raw Totals; *M* = 14.26; *S.D* = 3.3; *Range*: 07

The table 01 lists the knowledge of the teachers against their attitudes pertaining to corporal punishment. The knowledge displayed by the sample of teachers was scored keeping the minimum and maximum values procured by them as the range. Out of the maximum score of 54, 36 had procured a score in the range of 36 to 40 which amounts to over 66.7% of the total score (n = 54). Moreover, 202 teachers have obtained a score above 31 which amounts to 57.4% of the total score. Hence out of the total sample of 365 teachers 238 teachers seemed have scored above 57.4% conveying that their knowledge pertaining to child protection awareness is high.

When exploring the relationship between attitudes pertaining to corporal punishment and knowledge of child protection awareness, it was conveyed that eight teachers (2.2%) who had scores in the range between 21 to 25, have reported that corporal punishment is acceptable while 02 (.6%) have mentioned that it is not. Teachers who had scored in the range of 26 to 30, 80 (21.9%) have said that the corporal punishment is acceptable while 37 (10.1%) have said that it is not. Among the teachers who scored in the range of 31 to 35, 128 (35.1%) had said that it is acceptable while 74 (20.3%) had said that it is not. The teachers who had the highest scores pertaining to knowledge, in the sample; having scores in the range of 34 to 40, 19 (5.2%) have said that corporal punishment is acceptable while 17 (4.7%) have mentioned that it is not

Therefore, when examining the table number 01, it could be said that a definite trend cannot be identified pertaining to teacher attitudes of corporal punishment and their knowledge of child abuse awareness/ prevention. Equal number of teachers who seemed to have possessed high knowledge pertaining to this issue had positive and negative attitudes pertaining to corporal punishment. However, t-test conveyed that teachers who favored corporal punishment had higher perceived knowledge (*M* = 32.15, *SD* = 3.02) than teachers who did not hold positive attitudes pertaining to corporal punishment (*M* = 31.29, *SD* = 2.97), *t* (363) = 2.634, *p* = .009

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Table 02 – Frequencies and percentages of teacher perceived skills on their attitudes pertaining to corporal punishment

Skills	Agree to Co Pu' (n = 235)		Disagree to Co Pu' (n = 130)		R.T*
	f	%	f	%	
07-11	41	11.2	25	6.9	66
12-16	140	38.4	84	23	224
17-21	48	13.2	19	5.2	67
22-26	06	1.64	02	.56	08

Note: N = 365; R.T'' = Raw totals; M = 31.6; S.D = 3.01; Range: 21 – 40

The table 02 lists the perceived competence of the teachers pertaining to child protection against their attitudes on corporal punishment. The perceived competence listed by the teachers was displayed keeping the minimum and maximum values for the perceived competence as the range. In the category of 7-11, 41 (11.2%) are in favor of corporal punishment while 25 (6.9%) are not in favor of it. Majority of the teacher in the sample have scored between 12 to 16 for perceived skills, out of which 140 (38.4%) accept corporal punishment while 84 (23%) do not. Next in line is the teachers who scored between 17 to 21, out of these teachers 48 (13.2%) seem to favor the corporal punishment while 19 (5.2%) do not. Among the teachers who are in the highest range for perceived competence (22-26), 06 (1.64%) seem to be of the perception that corporal punishment is acceptable while 02 (.56%) seem to think that it is not. Again there a clear trend cannot be observed between the perceived competence of the teachers who favor and do not favor corporal punishment. Majority of the high scorers do also seem to favor the corporal punishment. t-test conveyed that there was no significant difference in reported perceived skills and teacher attitudes pertaining to corporal punishment. Teachers who favored corporal punishment did not significantly differ from (M = 13.92, SD = 3.2) from teachers who did not favor corporal punishment (M = 14.44, SD = 3.34), $t(363) = -1.431$, n.s

DISCUSSION

The focus of this paper was to explore in detail, one facet of the broader debate surrounding the corporal punishment of Sri Lankan children; relationship between teacher attitudes pertaining to corporal punishment against their child protection knowledge and perceived skills of imparting child protection and care for their students.

Several contributions to the existing literature on corporal punishment emerge from this study. First, the results conveyed that teachers surveyed displayed a high knowledge of child protection awareness (M = 31.6/ 40; S.D = 3.01) and moderate amount of perceived skills (M = 14.26/26; S.D = 3.3). Second, analysis of relationship between attitudes pertaining to corporal punishment and child protection knowledge conveyed that teachers with higher knowledge of child protection awareness perceived corporal punishment as an acceptable method disciplining

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children. Third, there was no significant difference between teachers who were for and against corporal punishment pertaining to perceived skills. Therefore, the results of the present study convey that though child protection awareness programs conducted by government (Ministry of Education, 2008; UNICEF, 2008) and non-governmental organizations (PLAN, 2008; UNICEF, 2001; Pathirana, 2008; UNICEF, 2013) may have improved child protection knowledge of the teachers such programs have not created a significant attitudinal change within the teachers. Given the cultural context and past educational guidelines of Sri Lanka, in which corporal punishment was viewed as positive and beneficial mode of discipline, it could be hypothesized that it is difficult to create attitudinal change within teachers in few years, using small number of training programs. However, in keeping the best interest of the young Sri Lankan children professionals and advocated should not be discouraged by such findings as above. For instance, literature conveys that when taken an effort to train teachers on child protection, their knowledge pertaining to it has marked a significant improvement (Pathirana, 2008)

Teachers' high knowledge of child protection awareness may be due to the successful impartation of the child protection awareness programs carried out by the government (UNICEF, 2001; UNICEF, 2013) and nongovernmental organizations (PLAN, 2008; Pathirana, 2008). However, the overwhelming number of teachers ($n = 235$) who favoured corporal punishment as opposed to those who did not ($n = 130$) cannot be ignored. More alarming is that fact that teachers who favoured corporal punishment as an appropriate disciplinary strategy had higher knowledge of child protection awareness in comparison to the teachers who did not. Hence, even though child protection training/ awareness programs carried out by the government and non-governmental organizations (Pathirana, 2008; UNICEF, 2013; PLAN, 2008) may have left a positive impact on the Sri Lankan teachers in terms of knowledge they may have not created the attitudinal change expected by the program organizers.

Compared to the child protection knowledge, teacher perceived skills pertaining to child protection seem to be moderate to low. Again, majority of the teachers who scored high on perceived skills seem to favour corporal punishment as an appropriate disciplinary strategy in comparison to those who did not.

Studies, which examined the teacher practices pertaining to corporal punishment, from the perspective of the students, illustrate that corporal punishment as a disciplinary strategy remains to be prevalent and frequent among the Sri Lankan teacher (UNICEF, 2013; UNICEF, 2008; de Silva, 2004). While confirming with the findings of these studies, the present study conveys that teachers may use corporal punishment even though they are aware of the fact that it is abusive and may threaten to the psychosocial wellbeing of their students.

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Results of the present study also convey that the knowledge or perceived skills may not be a significant factors in preventing/ minimizing corporal punishment. Therefore, rather than exclusively concentrating on improving the knowledge and skills of the teachers' through awareness/ training programs; policy makers and program implementers' need to focus on creating attitudinal change within the teachers.

Moreover, the present study stresses the importance of monitoring the teacher attitudes and practices with the intention of rectifying disciplinary strategies used by the teachers if found to be a threat to the psychological wellbeing of the Sri Lankan children. In addition, practical/ feasible and culturally appropriate strategies of teaching the students with behavioral problems must be an integral part of the teacher training education, empowering the student teachers from the very beginning of their teacher education training. Though special education as a subject/s and courses have been included in the pre/school teacher training curricula in Sri Lanka (Open University of Sri Lanka, 2012a; 2012b), Sri Lankan teacher seem to be still struggling to identify alternative disciplinary methods to replace the vacuum left of the banning of corporal punishment by the Ministry of Education, Sri Lanka. Therefore, the present study urge the curriculum developers and teacher trainers to evaluate the effectiveness of such subjects and courses with the mission of providing effective teacher training curricula of managing disciplinary problems; with an emphasis towards promoting psychological wellbeing of Sri Lankan students.

Moreover, faculties, departments and teacher training colleges of education need to collaborate and network in order to develop resource materials, revise syllabuses, come up with universal/ practical and culture sensitive strategies of classroom management to help the teachers and teacher trainees to cope with behaviors that they believe may cause them to implement corporal punishment. Since teacher trainees are bound to experience behavioural problems of students when they work in schools, it is believe that that they would immensely benefit from practical, child friendly disciplinary strategies.

In fact, past studies confirm the relevance and importance of child protection training (Baginsky, 2003; Pathirana, 2008) imparted to teacher-trainees and teachers, as well as the evaluation of the training programs (Baginsky & Macpherson, 2005; Walsh & Farrell, 2008), including trainings on corporal punishment. Therefore, future studies need to explore the duration, content, attitudes and perceived knowledge/ competence of the teachers after procuring such trainings. When Baginsky (2003) surveyed the existing child protection courses in U.K she found that only a maximum of 3–4 hours was being devoted to child protection on a few courses. However, at times, duration of such courses were as short as one hour, and courses which requested the teacher trainees to submit some written work for assessment on child protection, were extremely few. Moreover, it is also important to provide trainings and evaluations once teachers are in

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practice, Baginsky's (2003) study also conveys that in-service training for newly qualified teachers impacts on the confidence of both those who have had and those who have not had training prior to qualification. Training programs of such a short duration may not contribute to positive attitudinal change.

Moreover, Sri Lankan teachers may carry beliefs about caning from their own schooling experience. Therefore, when they are not provided with suitable alternatives they will resort to their own experience, which often is the use of corporal punishment. Teachers may also feel helpless and may not be able to cope with classroom management due to lack of competence resulting from the absence adequate resources and training (Cicognani, 2004). Hence the present study also suggests the importance of providing applicable and practical training to Sri Lankan teachers, which would inculcate a sense of confidence within them to use alternative disciplinary strategies.

Also, legislative changes required to create corporal punishment an unlawful act remains to be done. As a result, corporal punishment remains lawful, as in the illustration of acceptable criminal force in the Penal Code, 341 (Sri Lanka – Country Report, 2011), though the Section 2 of Circular No 2005/17, issued by the Ministry of Education in 2005, declares that corporal punishment should not be used in schools. However, as at 2010 this had not been confirmed in legislation (Sri Lanka – Country Report, 2011), though the teacher have been made aware that is a punishable offense (De Silva at al, 2003). With this loophole and in the absence of adequate awareness and training on alternative disciplinary strategies teachers and school administrators may be in shortage of power to eradicate it from the schools.

As a result, even after introducing the government circular in 2005, corporal punishment is still being used and favored as a disciplinary strategy by the Sri Lankan teachers (National Child Protection Authority, 2005). However, this phenomenon is not only an exclusive practice within the Sri Lankan context. When Cicognani (2004) explored the teachers attitudes pertaining to the banning of corporal punishment in the South African schools she found that teachers even after the ban viewed corporal punishment as having a place in education. They were mostly concerned amongst others issues about their personal safety and felt the administering of corporal punishment will ensure their safety. Though teachers reported that they have found alternatives disciplinary strategies which work, they still felt that the training provided did not meet their needs in the classroom situation.

There are several limitations to this study. First, teacher knowledge and attitudes were not explored in depth. Hence, future studies need to concentrate on exploring teacher insights and alternatives for corporal punishment as well as ways of ending corporal punishment in Sri Lankan schools. In fact studies carried out at global level reports that when requested to provide

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alternatives for corporal punishment teachers are capable of coming out with creative and insightful strategies (Kilimci, 2009). Another limitation of this study was its small sample size. Hence, the future studies should also need to explore this factor with a more representative sample of preschool and school teachers.

For instance, when Kilimci, (2009) asked the teachers in Turkey for alternatives for corporal punishment they came up with strategies such as necessity to separate the younger students from older students, reduce the classroom population, necessity of educating the parents both in terms of integration and child education and importance involving civil organizations must be involved in the education issue and necessity of providing facilities such as sports or arts centres to distract students from misbehaviour. When Cicognani (2004) asked the teachers to provide workable alternative disciplinary strategies they came with ones such as dealing with learners directly, contacting parents and providing some form of written or physical punishment.

Such studies point out the importance of asking the teachers and helping them to apply viable child and culture friendly/ sensitive strategies which they perceive would work in the context they operate. Such an approach would be effective and make teacher feel confident to impart the alternative disciplinary strategies coupled with frequently prescribed ones in the western guidebooks. Hence, the present study also recognize the importance of conducting future studies to explore the Sri Lankan teachers' perception of viable child friendly/ sensitive alternatives to corporal punishment and addressing cultural beliefs pertaining to corporal punishment.

Examining attitudes pertaining to corporal punishment from an historical perspective does not simplify matters. Though, beatings have been stoically borne and tacitly accepted by students in the 'by gone days', during the past decade this form of practice has been widely challenged by different sectors including students. However, in the absence of an effective violence prevention curriculum within the Sri Lankan educational system, corporal punishment remains a disciplinary option for many teachers as they feel helpless in the face of school violence. Moreover, it is hard to imagine that confused, over-worked and under-qualified Sri Lankan teachers will give up corporal punishment voluntarily, especially when they considered it their only means of keeping order in class.

A major consolation is the introduction of the concept 'The Child Friendly Schools' by the government of Sri Lanka, which addresses corporal punishment along with other issues (Ministry of Education, 2008). One of the criteria to be categorized so is for the school to have a code of conduct on corporal punishment as well as bullying that are clearly understood by the school community. Occurrence of teachers using corporal or psychological punishment and of bullying is to be monitored, and the school Disciplinary Committee is to discuss all incidents of

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these behaviors to minimize such incidents and to provide support to affected individuals (Sri Lankan Country Report, 2008).

However, at the policy level, government has not attempted to fill the vacuum left by the banning of corporal punishment and urgently need to do so. The introduction of school level codes of conduct and national policy on early violence prevention seems also be required, in addition to programs to create attitudinal changes within the teachers. These proposed strategies would be in line with consensual democratic ideas about school governance, involving a new approach of a different philosophy towards punishment.

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Conflict of Interests

The author declared no conflict of interests.

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Effect of Brief Focused Attention Meditation on Theory of Mind

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ABSTRACT

Background: The ability to infer and understand the mental states of others termed as Theory of Mind, is an intrinsic part of social interaction. Most efforts have been made to study disorders related to ToM i.e. depletion in ToM and considerably less is known about variables that may enhance ToM. Further, effects of meditation have been studied extensively in domains of Attention and Emotional regulation, yet only few studies have studied effect of meditation on ToM. In current study, brief intervention methodology was used to access effects of meditative practice on Theory of Mind. Two groups were formed, first group consisted of subject who were treated with a particular type of meditation termed as Focused Attention meditation and second group was treated with a pseudo meditation. Treatment used was of 20-minute duration in both groups and subjects of both groups were without any prior long term experience in any form of meditation. **Result:** After that subject self-reported mindfulness, attention and awareness via MAAS- state scale and then participated in a ToM experiment called YONI task, to access any changes in their ability to do ToM, for both cognitive ToM and affective ToM. The results indicated that brief Focused Attention meditation enhanced both Cognitive ToM and Affective ToM.

Keywords: *Mediation, Focused attention, Theory of Mind, Cross-sectional, Brief-intervention.*

Meditation can be understood as a form of mental training that aims to improve subjects core psychological capabilities like attention, emotional regulation etc. But Mindfulness practices and meditation are not synonymous, either in theory or in practice. However most of the mindfulness based interventions utilize some form of meditative practices. The word mindfulness may be used to describe a psychological trait, a practice of cultivating mindfulness, a mode or state of awareness, or a psychological process. One of the most commonly cited definitions of mindfulness is the awareness that arises through “paying attention in a particular way: on

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purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, p. 4). Descriptions of mindfulness provided by most other researchers are somewhat similar. Baer, for example, defines mindfulness as “the non-judgmental observation of the ongoing stream of internal and external stimuli as they arise”. However, two roots can be traced back to conceptualization of mindfulness in scientific studies, firstly by Jon Kabat-Zinn who derived the concept from Buddhist philosophy while trying to strip it from the religious and philosophical assumptions, and equating the word mindfulness to Buddhist pali term “sati” which derives from a root, meaning 'to remember,' but as a mental factor signifying presence of mind, attentiveness to the present, rather than the faculty of memory regarding the past and is defined as “paying attention with purpose, non-judgementally and while in the present moment (Kabat-Zinn, 1994, 2005). The second root can be traced back to Ellen Langer, which originated independently of any reference to eastern contemplative traditions, her concept originated from a social psychological approach while researching about mindlessness and thus generating a contrastive definition. Mindfulness here is defined as an active state of mind characterized by novel distinctions-drawing that results in being situated in the present, sensitive to context, having different perspective and guided but not governed by rules and routines. Whereas mindlessness is defined as an inactive state of mind characterized by reliance on distinctions or categories drawn in past, where past determines the present, being trapped in a single perspective, insensitive to context and governed by rules and routines. Both views are similar, in as both emphasize focus on moment-to-moment awareness, but differ in their conceptualization, Jon Kabat view focuses on cultivation of mindfulness and gaining new insights, while Langer views conceptualizes mindfulness as a universal human capacity, that need not be enhanced through practice rather is maintained by maintaining an orientation on present and alternateness to distinctions, context and multiple perspectives. In the present study Kabat-Zinn view is taken to conceptualize mindfulness as a practice, that can be enhanced and needs to be cultivated.

Further, in cognitive science, to understand meditation as a process, the better way to classify meditation is in terms of cognitive, affective and behavioural mechanism, the process it is exploiting. A single meditation process might employ multiple mechanism e.g. a single meditation might use multiple cognitive mechanism or use mixture of cognitive, affective and behavioural mechanism, which can be further classified in terms of primary mechanism and secondary mechanisms. Classification on basis of cognitive processes involved in meditative practices was recently proposed as: Attentional Family, Constructive family, Deconstructive family. Those groups of practices which are referred to as “attentional family” are those that train variety of processes related to regulation of attention i.e. capacity to manipulate the orientation and aperture of attention, to monitor, detect, and disengage from distractors, and to reorient attention toward a chosen object, while strengthening the capacity to be aware of the processes of thinking, feeling, perceiving and uses awareness directly, which is understood as a cognitive function of being aware of the processes of distraction from the chosen object and not to be experientially fused (or cognitively fused or object mode), with the objects of consciousness or

experience. A further classification has been done on basis of attention style used during meditation, namely focused attention (FA) and open monitoring (OM) (Chan and Polich 2006; Lutz et al. 2008a). Focused attention style refers to attention style in which attention is focused on a single object in a sustained manner and also includes regulatory skills of monitoring the focus of attention, detecting distraction, disengaging attention from the source of distraction and refocusing on the object (Lutz et al. 2008a). FA involves selective attention on a chosen object e.g. localized sensation caused by respiration and to sustain the focus monitoring of quality of attention is essential during the process, attention may wander away from the singular chosen object and subject will be required to detect this wandering and thus restore it to the singular object again e.g. a common practice is to keep or maintain sustained attention on localized sensation of breath i.e. when it is inhaled and exhaled (Vedic literature described it as *parana* and *aparana*, and Buddhist literature as *Anapanasati*), but attention may wander off to some other sensation in the body or to thoughts, then to bring back attention to singular object, in this case sensation of breath, first mediator must be able to detect this wandering and not get lost in other non-relevant sensations or thoughts (experiential fusion), then after it has been noticed that attention has wandered to other objects, disengagement of attention is required from the non-relevant sensation or thought and lastly redirection or reengagement of attention to chosen singular object. So, focused attention involves three things namely focused or concentrated attention, awareness (which helps to detect attention wandering) and thirdly attention regulatory skills of disengagement and reengagement. In this form of meditation, progress can be measured in terms of three things i.e. degree of effortlessness of maintaining the attention to chosen object, how less frequently process of disengagement and reengagement are happening and thirdly how continuous is the process of awareness. This is important point to be noted as the primary goal of these focused based attention is not to gain control over attentional focus but by using attentional focus to maintain awareness continuously. Second sub-classification in the attentional family is called open monitoring (OM) meditation, this group includes those practices that have three main features namely, no explicit focus on object, non-reactive meta-cognition monitoring and non-reactive awareness of automatic cognitive and emotional interpretation of sensory, perceptual and endogenous stimuli. OM practices initially use FA training to calm the mind and reduce distraction and then meditator gradually reduces the focus on any explicit object. OM is also referred to as mindfulness meditation (Cahn and Polich, 2006). Another difference between the two is that unlike FA meditation, OM meditation doesn't entail attentional biases resulting in selection and de-selection process. Secondly, constructive family type of practices are those which strengthens the psychological pattern that harness well-being. It's been proposed that well-being is effected by targeting maladaptive self-schema and replacing them with more adaptive conceptualization of self, where self-schema is understood as latent beliefs and conceptions about self and are thought to underline and inform thought and emotions and also impact patterns of brain function. Two cognitive mechanisms have been proposed in this family that are cognitive reappraisal and perspective taking. Cognitive reappraisal is the process of changing how subject thinks about situations and events (thoughts, emotions) in such a way that

his response to them is modified and has been associated with brain areas that are related to cognitive control, which includes brain areas like the dorsomedial, dorsolateral, and ventrolateral prefrontal cortex and posterior parietal cortex. The second process that have been associated with constructive meditations is that of perspective taking which means the act of considering how oneself or another would feel in a particular situation. Perspective taking is involved with experience of social emotions, it is found to be diminished in psychopaths and also to be a helpful in reducing intergroup prejudice. Imaging studies have pointed that there is no single neural mechanism related to perspective taking, but different brain networks. It's been proposed that, both cognitive reappraisal and perspective taking are used to target maladaptive or neuro adaptive patterns, example that can be given, is of transformation of empathy into compassion i.e. "Hearing a crying baby on an airplane, for example, might first elicit a feeling of distress followed by aversion. This experience can be transformed by taking the perspective of the baby's mother, thereby triggering a sense of warmth and compassion, and also by reinterpreting the sound of the baby's cries, viewing the experience as an opportunity to cultivate kindness and concern rather than an impediment to one's own well-being. By systematically cultivating compassion in this manner, responding to aversive stimuli with altruistic concern may eventually become automatic. Thus, such changes may be studied within the framework of habit formation, which is associated with various facets of physical and psychological well-being". These type of practices have received little attention in scientific study, some of the studied practices in this class are compassion based meditation. Thirdly, group of meditative practices referred to as deconstructive family aims to undo maladaptive cognitive patterns by exploring the dynamics of perception, emotion, cognition and this exploration might result into insights about one's internal models of self, other and world. It has been proposed by the authors that central mechanism in deconstructive family is of 'self-inquiry', where self-inquiry is been defined as a process of investigation the dynamics and nature of conscious experience. This family has received very less attention in term of scientific study.

Theory of Mind (ToM)

In 19th century German aesthetics employed the word *Einfühlung* (meaning "feeling into") to describe the sensation one feels when viewing an inspiring piece of art. Then in 20th century Theodor Lipps, (some consider him as first proponents of simulation theory) proposed that this same process (*Einfühlung*) may have something to do in coming to understand the minds of others i.e. he not only argued for *Einfühlung* as a concept that is central for the philosophical and psychological analysis of our aesthetic experiences but also has to be understood as being the primary basis for recognizing each other as minded creatures. Thus *Einfühlung* was transformed from a concept of philosophical aesthetics into a central category of the philosophy of the social and human sciences and in 1909 psychologist Edward Titchener translated Lipps's conception of *Einfühlung* to "empathy". In "On the Optical Sense of Form: A contribution to Aesthetics" (1873), Robert Vischer used the term "Einfühlung" in a more technical sense—and in using the substantive form he indicates that it is a worthy object of philosophical analysis. Lipps pointed

about a “universal appreciative empathy” and a general “empathy of nature.” and also used empathy in order to explain certain perceptual illusions. From his perceptive empathy “refers to any mental activity on part of the observer that is triggered in the perceptual encounter with an external stimulus and that has to be understood as being constitutive for our comprehension of an object qua object. From empiricist view, sense data is the fundamental basis for our investigation of the world and from phenomenological perspective, our perceptual encounter with aesthetic objects and our appreciation of them as being beautiful—our admiration of a beautiful sunset, for example—seems to be as direct as our perception of an object as being red or square. By appealing to the psychological mechanisms of empathy, philosophers intended to provide an explanatory account of the phenomenological immediacy of our aesthetic appreciation of objects. In beginning of the 20th century philosophers like Prandtl (1910), Stein (1917), Scheler (1973) argued considerably about empathy and Lipp’s core concept of empathy was understood as the *primary* epistemic means for our perception of other person’s mind. His argument for empathy was closely tied to a thorough critique of what was widely seen at that time as the only alternative for conceiving of knowledge of other minds, that is, Mill’s inference from analogy.

Contemporary authors/philosophers/psychologists have offered a variety of definitions to the term “empathy”. Feshbach proposed that the process of empathy involved three components: 1) the ability to discriminate and identify the emotional state of another 2) the capacity to take the perspective of the other 3) the evocation of a shared affective response, these three factors are accepted by most authors, yet some few more components have been also proposed. Some have argued for role of sustained self-other distinction during shared affective response and mimicked motor movements that result from observing another move as a type of “motor empathy. In the cognitive science, authors have divided these factors into two groups: cognitive empathy and affective empathy. Ability to share the emotional state of another person is termed “affective empathy” and the capacity for understanding another person’s experience and perspective is termed “cognitive empathy” (Davis, 1983).

The ability to infer the thoughts and feelings of others is critical for appropriate and effective social interactions and discourse comprehension, but it is not sufficient. Belief understanding does not guarantee emotion understanding; emotion understanding does not guarantee empathy; and empathy does not guarantee sympathy/compassion as manifested by kindness to people (Davis & Stone, 2003). Hence, empathy is the link between knowing the thoughts and feelings of others (ToM), experiencing them (Emotional Empathy), and responding to others in caring, supportive ways (compassion). Broadly speaking, empathy refers to the reactions of one individual to the observed experiences of another (Davis, 1994). Some scholars view empathy as a cognitive process, stressing the ability to engage in the cognitive process of adopting another individual’s psychological perspective. This process, which can be termed cognitive empathy (and when including an inference on affective aspects can also be known as affective ToM or affective cognitive ToM), may be defined as an active attempt by one person to get “inside”

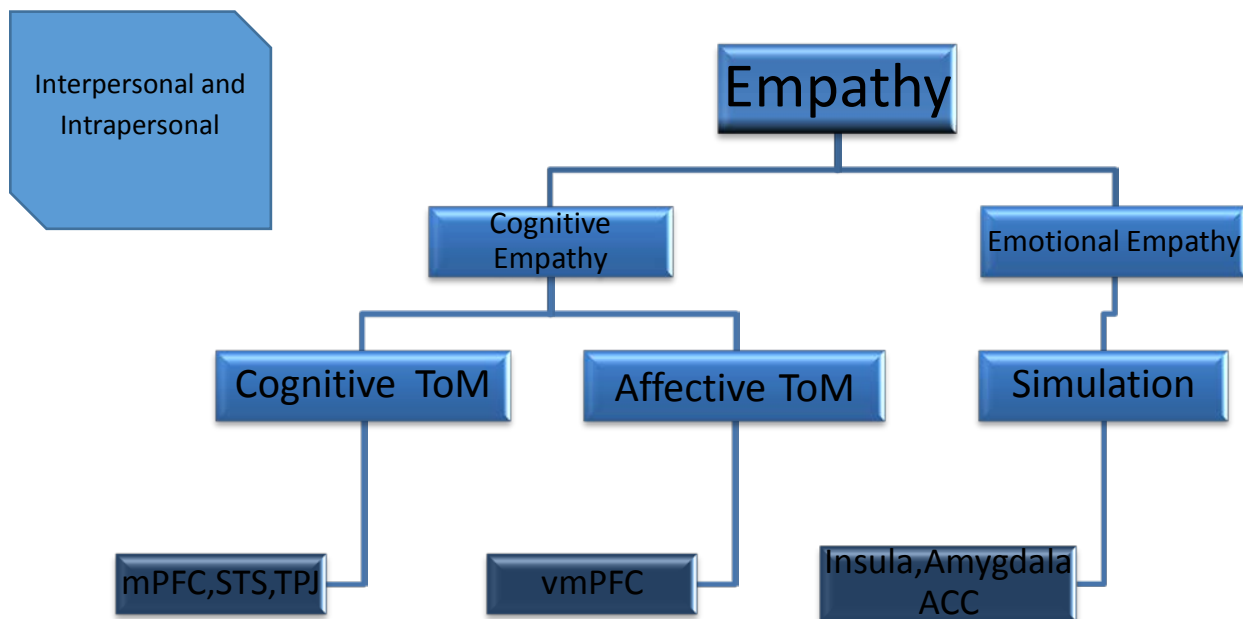
another's mind or to approach someone mentally through a deliberate intellectual effort. In other words, cognitive empathy describes a situation in which the subject is an active agent deliberately attempting to step outside the self and "into" the other's experiences; it involves a cognitive recognition of the emotions of others. This process may involve perspective taking (Eslinger, 1998) and ToM (Shamay-Tsoory, Tomer, Goldsher, Berger, & Aharon-Peretz, 2004). It is thought to be dependent on several cognitive capacities, such as cognitive flexibility and memory (Davis, 1994; Eslinger, 1998); Grattan, Bloomer, Archambault, & Eslinger, 1994). Other studies in the field have used a definition of empathy that showcases its affective aspects. Such studies refer to the ability to experience affective reactions to the observed experiences of others as "affective empathy" (Davis, 1994). Here, empathy is understood as an emotional reaction of the observer when perceiving that another is experiencing or is about to experience an emotion. Thus there is difference between cognitive empathy (affective cognitive ToM) and emotional or affective empathy. Whereas cognitive empathy involves cognitive understanding of another person's perspective, emotional empathy includes appropriating these feelings, at least on a gross level (pleasant-unpleasant); (Mehrabian & Epstein, 1972). It has also been suggested that affective empathy is the basis for cognitive empathic ability. For cognitive ToM many brain regions have been identified as participating in cognitive ToM including medial prefrontal cortex (mPFC), superior temporal sulcus (STS), temporoparietal junction (TPJ), and temporal poles (Frith & Singer, 2008; Saxe & Powell, 2006; Saxe, Whitfield-Gabrieli, & Scholz, Pelphrey, 2009; Schilbach et al., 2012; Van Overwalle & Baetens, 2009; Young, Camprodon, Hauser, Pascual-Leone, & Saxe, 2010). It has been further suggested that the TPJ is mainly in charge of transient mental inferences about other people. Studies (Young et al. 2010) have shown that a disruption in the functioning of the right TPJ using TMS can result in a reduction of the participant's use of mental state information in moral judgments and mPFC, on the other hand, supports the attribution of more enduring traits and qualities of others, as well as of the self (Saxe & Powell, 2006; Schilbach et al., 2012; Van Overwalle & Baetens, 2009). Another distinction has been made on basis of Interpersonal and intrapersonal ToM and empathy, where former refers to empathy and ToM towards other (Self to other), later refers to empathy and ToM towards self (Self to Self). Also it to be noted that Mirror neurons are thus active both during the execution and observation of an action and it has been suggested that, given the observation-execution properties of the mirror neuron system, it is particularly well suited for providing the pertinent mechanism for motor empathy, imitation, and emotional contagion.

Further there are three main theories in cognitive science that tend to provide explanation for theory of mind namely: The Theory-Theory, Simulation-Theory and The theory of mind mechanism (ToMM). Conceptual change or theory-theory has been accepted as one possible explanation for TOM (Wellman et al., 2001). Theory-theorists believe that children learn a set of causal laws, or theories, about the beliefs and desires of people in general (Gopnik, 1993). Children then use these causal laws to explain behaviour observed in others, to predict desires and behaviours, and to perform other related ToM tasks. Secondly, Simulation theory also has

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been accepted as possible explanation for ToM (Gallese & Goldman, 1998). It posits that when a person (“A”) tries to understand another (“B”), A simulates what he would do in B’s place, and attributes the result to B. More specifically i.e. humans perform ToM by representing the mental states of others, and then using their own decision-making systems to operate on these foreign mental states to predict others’ behaviour; similar processes can be used to explain observed behaviour, making backward inferences (Laura M. Hiatt). Gallese and Goldman (1998) describe the distinction between this and theory-theory as, while theory-theory is performed as a “‘detached’ theoretical activity,” simulation theory involves attempting to mimic or impersonate the mental state of another. Lastly, theory of mind mechanism (ToMM) also offers a possible explanation, it allows people to generate and represent multiple possible beliefs. It has been proposed that this mechanism is fully functional in even very young children. The second mechanism provides a selection process (SP) that uses inhibition to reason about others’ beliefs, such as inhibiting a true-belief to select a false-belief answer; “ToMM-SP”, authors break it down into four steps:

- (1) identify candidate belief possibilities
- (2) provide a priori weights to the candidates, with true-belief receiving the highest weight
- (3) adjust the weights given the belief inquiry
- (4) select the highest-weighted candidate as the answer.



[Figure - 0]

Meditation and Theory of Mind (ToM) Interaction

In recent years, mindfulness interventions have been shown to remediate a range of clinical problems and also influence certain aspects of social cognition like meta-cognition. One of the most important aspect of social cognition is Theory of Mind. Some, preliminary investigations have revealed that ToM can be improved by certain factors like nasal admiration of oxytocin, compassion based training and reading literary fictions. Further, research in other domains have predicted a linkage between mindfulness and ToM e.g. it has been shown that mindfulness enhances executive attention, where research in executive attention has shown that when the faculty is used effectively by subjects, it enables them to form multifaceted evaluations of other social agents, that are not rigid to a stereotype based evaluations. Also, from neuroscience perspective it's been shown that cortical regions that support ToM and self-referential mental activity (e.g., medial prefrontal cortex, temporal parietal junction) also play an important functional role during mindfulness meditation. So, these possible linkages have motivated researchers to study the relationship between ToM and mindfulness and indeed some preliminary research have found some significant results, e.g. study done to see the effect of mindfulness training (MAT) (intervention based) on empathy, has showed diminished response towards emotional empathy, another study has found strong correlates between mindfulness score (CAMS-R) and perspective taking i.e. cognitive empathy/ ToM and increase in perspective taking / cognitive ToM (PT, IRI) after a mindfulness training program (intervention based) has been found. Also a cross-selection study has found that there is increase in cognitive empathy /cognitive empathy ToM (RMET) and emotional empathy (Cyberball) after a brief mindfulness intervention. But it also to be noted that a study using long-term intervention produced no effect on cognitive empathy / cognitive empathy ToM (RMET). Also, it might be noted that a previous study conducted by [P Parimoo, S Sharma, N Chopra] showed positive increase in terms of effect of brief open-monitoring mindfulness meditation on both cognitive and affective theory of mind (ToM). So, to address this gap and to find out whether this effect can also be seen in focused attention meditation, we conducted a brief intervention study with focused attention meditation, with a different experimental paradigm termed as YONI task.

METHODOLOGY

Overview

Research in meditation is still in its infancy and there are three type of methodologies that are been employed to understand meditation i.e. Cross-sectional, Brief intervention studies and Longitudinal intervention studies. Cross-sectional, studies two groups at a particular time, one is control i.e. people who have never meditated in their life and other is meditators group (expert). The idea behind this kind of methodology is simple, that to easily see the effects of meditation on subjects who had years of training, just compare them with normal population who did not had such training, while controlling various dimensions like age, socio-economic status etc. This comparison can be in neurological or psychophysical terms. Many studies have shown effects in terms brain structure and function, but there is a major flaw in these type of studies i.e. they can

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never inform researcher about direction of causality which caused such effects To put it simply it is not easy to control these groups on various control factors, so it difficult to reasonable rule out other variable which might have produced the effect and these studies are co-relational in nature i.e. they study the co-variation between two variables, so it difficult to apply causal attribution to meditation itself and rule out other factors which might be present in the personality of subjects in terms of interest in meditation, temperament, intensity, motivation etc. Secondly, Brief intervention studies or compare data from a two or more groups at a time just after the brief intervention. One group gets meditation training (in minutes) and other control. Initially researchers used no intervention for controls and simply compared it with meditation group, but that was problematic as both groups conditions were not controlled matched, so now for brief intervention studies control group is also provided with a treatment, like relaxation technique of same amount of time as meditators group spend on brief meditation. Advantage of such methodology is that they are easy to conduct and give results about the state effect only. Lastly, Longitudinal intervention studies This methodology studies or compare data from a two or more groups at several time points. They can range from few days to years, although current studies have used it from few days to 3-5 months. These studies are conducted in naïve subjects, in which subjects are randomly assigned to two or more treatment groups, one of which will consist of actual meditation practice and other will consist of pseudo meditation or treatment based on certain cognitive strategies which are known not to be included in the actual meditation group. Thus are able to extract specific meditation effects. They are difficult to conduct and also special attention has to be paid to control for variables that may be confounded with meditation practice such as diet, lifestyle.

Methodology Used

Brief intervention study will be conducted with a relaxation technique termed as group 1, which will serve as a pseudo meditation i.e. control and focused attention meditation will be used as a treatment in group 2.

Material Used

Since two groups are formed for treatment, treatment will be served via audio scripts via headphones. Group 1 audio script will consist of relaxation instruction and Group 2 script will consist of focused attention meditation. Both scripts are time matched to 20 minutes and have a bell sound at the end, to convey end of treatment.

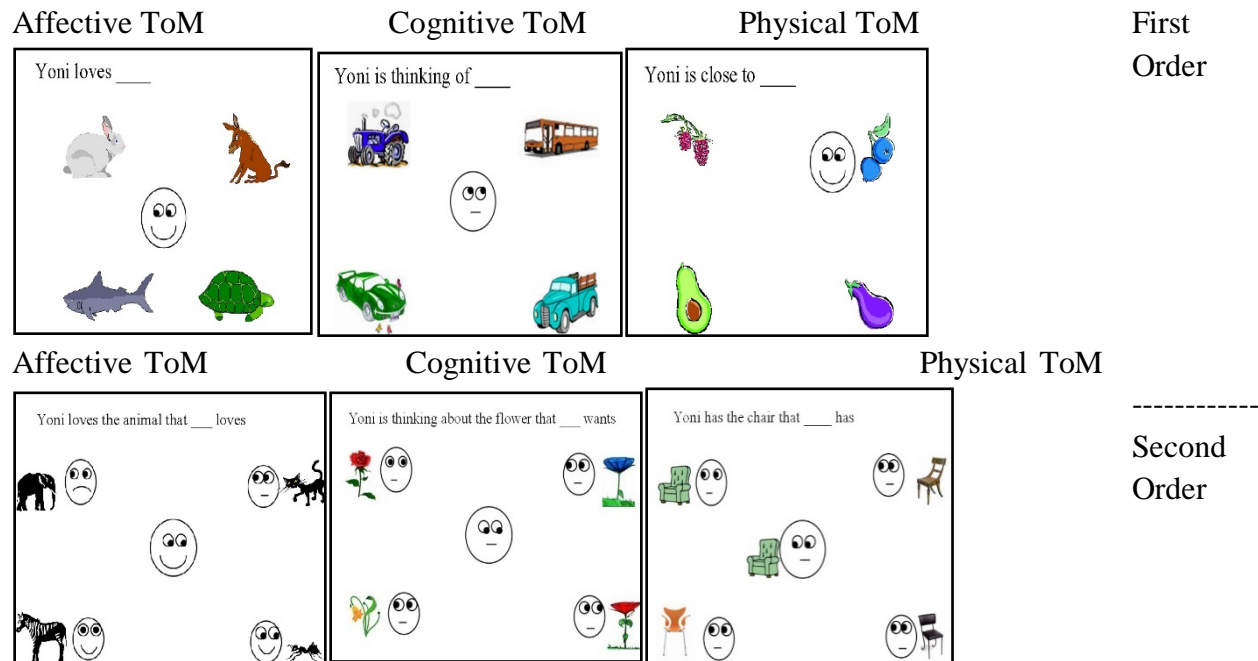


/Instructions t = 20 min./Bell /Instruction

Tools Used

Three tools were deployed, firstly Mindful Attention Awareness Scale (MAAS-State, [35]), a questionnaire (5-item) via mouse, that probes levels of mindful-attention and awareness via a 7-point rating scale (0= not at all; 6 = very much). Secondly, various Socio-Demographic information e.g. age, English reading comprehension level (1 to 5), Social Economic Classification levels by Social Economic Classification of India and Psychological/Neurological Disorder (Yes or No). Thirdly, for measuring both aspects of ToM (Affective and Cognitive), we used Yoni task, a paradigm introduced by Shamay-Tsoory and colleagues. The “Yoni” task has been used in studies of neurological and psychiatric populations, as well as in a neuroimaging study. In Yoni task subject is introduced to a cartoon face of the main character named “Yoni”, which is always located in the centre of the screen. In the stimulus “Yoni” is presented at the centre with four other coloured pictures in each of the screen quadrants in combination with one object of a semantic category (e.g., flowers, toys, fruits). The task is divided into three major conditions namely: affective ToM (aff), cognitive ToM (cog), and a control condition (phy) and two minor conditions namely first order ToM (e.g. “Yoni is thinking of__”) and second order ToM (e.g. “Yoni is thinking of the fruit that __wants”). Further a statement is displayed on the upper margin of the screen which have to be completed by the subjects e.g.: “Yoni likes the fruit that ... likes.” (affective ToM condition); “Yoni is thinking of the flower that ... is thinking of.” (cognitive ToM condition); and “Yoni has the toy that ... has.” (physical condition). All three conditions were kept almost identical with difference in the shape of the mouth of Yoni (Happy, Sad, Neutral), eye gaze of Yoni (directed Yoni gaze and non-directed Yoni gaze) and the sentence. Facial expressions and eye gaze direction of the four faces in the corners were systematically balanced, that is, in half of the items Yoni’s eye gaze was straight, in the other half Yoni’s eye gaze was towards the direction of the correct choice, and in half of the items two of the small faces had the same facial expression as Yoni in order to avoid simple face matching. Subjects were required to employ ToM for both the affective and the cognitive condition, but only analysis of physical attributes for control/ physical items was needed. Subjects responded(via computer mouse as fast as they can) by choosing one of the four available options(every item had only one correct answer) in which they were required to merge the three cues namely, facial expression(shape of mouth),the eye gaze and verbal cues (what was said in the sentence).The stimulus was given in three phases namely Phase A, Phase B and Phase C. Phase A executed first order trials of condition "cognitive", "affective", and "physical" in a mixed design (8 trials each),Phase B executed a mixture of first order "cognitive" and "affective" (4 trials each) trials and second order affective trials (24) in a mixed design and at last Phase C executed second order trials of condition "cognitive" (24 trials), "affective" (12 trials), and "physical" (6 trials) in a mixed design.

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[Figure: 1]

Sample

An a priori sample size calculation performed on G*Power 3.0.10 ($\alpha = .05$, $d = 0.6$, power = 80%) revealed a requirement of 72 participants. So, the sample of study consisted of 72 subjects (36 for Group 1 and 36 for Group 2). Sample of the study was selected by random sampling via word of mouth. The age range was from 20-32-year-old.

Procedure

Participants were greeted and were told that the research assessed people's reaction to different stimulus i.e., participants were blind to the purpose of the inquiry. After that eye test was performed and then subjects were instructed about various ethical considerations about the study. After taking appropriate consent, they were randomly assigned to one of the treatment condition i.e. Focused Attention and control. The experimental manipulation was then introduced. All participants were instructed to close their eyes, relax and listen to scripted audio instructions (via headphones) and that a bell would chime after 20 minutes to signal the end of this activity. In meditation group instructions were of focused attention meditation and in control group, relaxation instructions were used (pseudo meditation). Following 20 minutes' treatment subjects filled the Mindful Attention Awareness Scale (MAAS-State). On completion of the MAAS-S, ToM YONI task started. After the task, subjects filled various Socio-Demographic information e.g. age, English reading comprehension level (1 to 5), Social Economic Classification levels by Social Economic Classification of India and Psychological/Neurological Disorder (Yes or No).

RESULTS

Controls

Total number of subjects were 72 (36 for each group), all male population, with age range of 20-32 and mean age of group 1 (meditation) was 25.00, and of group 2 (control) was 24.638. No significant difference was found in term of age with t test ($t=0.4258$) of p value = 0. 6716. Further mean values of English reading comprehension were 3.055 for group 1 and 2.805 for group 2, with no significant effect with t test ($t= 0.7984$) of p value = 0. 4279. Further SEC mean values were 3.722 for group 1 and 3.583 for group 2, with no significant effect with t test ($t= 0.4324$) of p value = 0. 6667. Also, no subject reported Psychological or Neurological Disorder.

Age			
Group	Mean	t value	P value
Meditation	25.000	0.4258	0. 6716 N*
Control	24.638		

[Table – 1]

English Reading Comprehension			
Group	Mean	t value	P value
Meditation	3.055	0.7984	0.4279 N*
Control	2.805		

[Table – 2]

Social Economic Classification of India			
Group	Mean	t value	P value
Meditation	3.722	0.4324	0.6667 N*
Control	3.583		

[Table – 3]

Manipulation

The success of the experimental manipulation was confirmed, such that subjects in the mindfulness condition reported a greater awareness of the present moment (i.e. state mindfulness) than their counterparts in the control condition, $t = 4.203$, $p < .001$, with mean value of 4.212 (0.4372) for group 1 and mean value of 3.765 (0.4644) for group 2. Thus, as expected, subjects who underwent the mindfulness treatment reported higher levels of state mindfulness. Mindreading performance, conceptualized as affective ToM and cognitive ToM and measured by the YONI task, was better for participants in the mindfulness than control condition, in both conditions, with t value = 2.186 of p value = .0321 and with accuracy score of (80.613 % - 75.405%) for affective ToM condition and t value = 4.850 of p value < 0.001 and with accuracy score of (87.96 % - 79.62%) for cognitive ToM, confirming our prediction.

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Mindful Attention Awareness Scale			
Group	Mean	t value	P value
Meditation	4.212 (0.4372)	4.203	<.001 Sig*
Control	3.765 (0.4644)		

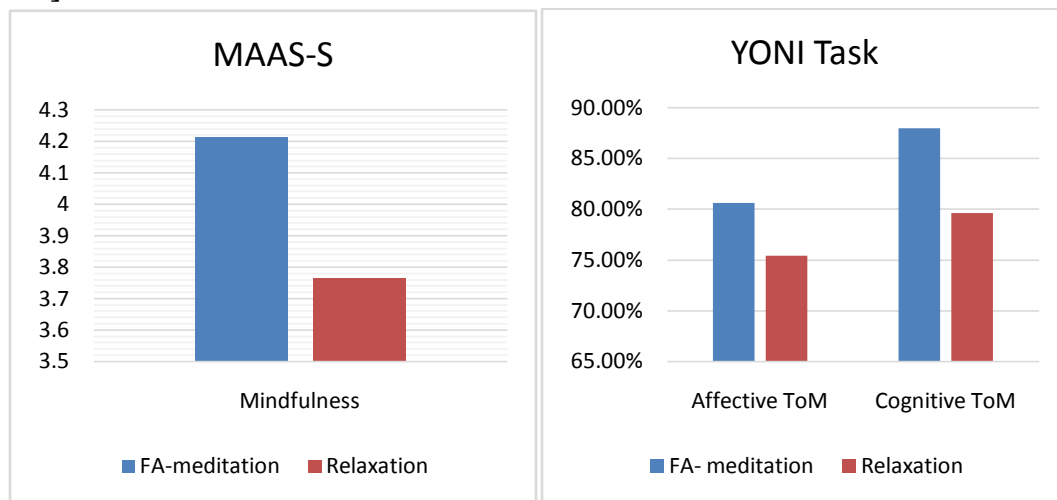
[Table – 4]

YONI task – Affective ToM			
Group	Accuracy Score	t value	P value
Meditation	80.613	2.186	= .0321 Sig*
Control	75.405		

[Table – 5]

YONI task – Cognitive ToM			
Group	Accuracy Score	t value	P value
Meditation	87.96	4.850	<.001 Sig*
Control	79.62		

[Table – 6]



[Graph – 1]

[Graph – 2]

Conclusions and Implication

The finding that Focused attention meditation has clear influence on ToM, has implications for both clinical and normal settings. In clinical settings, impact of this type of meditation on social-cognitive disorders might prove helpful and in normal settings it might help individuals to perceive each other mental states more effectively, resulting in more social well-being. This study also provides motivation for another study to look for the long term effect of FA meditation on ToM and also to see comparative difference between FA and OM meditation.

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Conflict of Interests

The author declared no conflict of interests.

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Knowledge of Information and Communication Technology and Academic Performance of Secondary Students: A Comparative Study

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ABSTRACT

In this study it is aimed to compare the level of Knowledge of ICT and Academic Performance of students of G.S.E.B and C.B.S.E boards. The study was investigated on secondary school students of G.S.E.B and C.B.S.E boards. Descriptive method has been used for the study and students of IX and X standard were selected randomly for the collection of the data. Five point rating scale tool was constructed by researcher having 120 statements. Data was analyzed by using t- test. The investigator finds the fact there is significance difference in the level of Knowledge and Academic Performance of G.S.E.B and C.B.S.E school students; it is higher in C.B.S.E school students than G.S.E.B school students.

Keywords: *Knowledge, ICT and Academic Performance*

Information and communication technology is an increasingly influential factor in education. Computers and mobile phones are used in developed countries both to complement established education practices and develop new ways of learning such as online education (a type of distance education). This gives students the opportunity to choose what they are interested in learning. The proliferation of computers also means the increase of programming and blogging. Technology offers powerful learning tools that demand new skills and understandings of students, including Multimedia, and provides new ways to engage students, such as Virtual learning environments. Technology is being used more not only in administrative duties in education but also in the instruction of students. The use of technologies such as PowerPoint and interactive whiteboard is capturing the attention of students in the classroom. Technology is also being used in the assessment of students. One example is the Audience Response System (ARS), which allows immediate feedback tests and classroom discussions.

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“Information and communication Technologies (ICTs) are a “diverse set of tools and resources used to communicate, create, disseminate, store, and manage information.” These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.” There is increasing interest in how computers and the Internet can improve education at all levels, in both formal and non-formal settings. Older ICT technologies, such as radio and television, have for over forty years been used for open and distance learning, although print remains the cheapest, most accessible and therefore most dominant delivery mechanism in both developed and developing countries. The purpose of ICT in education is generally to familiarize students with the use and workings of computers, and related social and ethical issues. ICT has also enabled learning through multiple intelligence as ICT has introduced learning through simulation games; this enables active learning through all senses.

REVIEW OF RELATED LITERATURE

Rajender Kumar (2007) tried to find out the best instructional method out of three i.e. Conventional Instructional Systems (CIS), Audio-video Instructional System (AVIS) Multimedia Instructional System (MIS) for teaching Information Technology at the secondary level. Four tools were used in this study out of which except for Intelligence test all other tools were developed by researcher. It was found that MIS is the best method, AVIS is the second best and CIS is the third best method for taking Information Technology at secondary level. Siddiqui M.A., Abraham Jessy and Khan Mohsin Ali (2009) intended to study the availability and use of Information and Communication Technology (ICT) in schools in Delhi. The major findings were availability of software and hardware facilities was not very good, there should be more software for teaching purposes and there should be more periods allocated for computers at all levels. Vellaisamy, M. (2007) studied the effectiveness of multimedia on the achievement of pupils in science at VIII standard. For this purpose, sample of 520 pupils was drawn from VIII standard of 13 schools of Nagapattinam block. The pre-test and post-test were used to arrive following conclusion. The pupils of the experimental group achieved more than the pupils of control group in science at upper primary level. This is due to the favourable impact of the multimedia approach. Ton, Mooij. Ed Smeets. (2000) studied the use of Information and Communication Technology (ICT) in education. Finally, educational and policy support actions to the ICT transformation process in school are presented in a structured way. The results are worthwhile for school practice and national policies, but they also need further underpinning and validation through research in other schools. Allan H.K, Yuen, Nancy law, Wong K.C. (2003) studied about ICT implementation and school leadership: case studies of ICT integration in teaching and learning. The study shows that the strategy adopted by a school in instituting such change and the resulting variation of pedagogical practices using ICT is strongly dependent on the school leaders' vision and understanding of the role and impact of ICT in the curriculum, their goals and objectives for ICT integration, as well as the history, culture and background of the school and its general vision and mission. Pearson, Matthew, Somekh, B. (2004). Tried to use Concept-

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Mapping as a Research Tool: A Study of Primary Children's Representations of Information and Communication Technologies (ICT)

Current approaches to ICT use in primary schools, involving explicit, systematic teaching of ICT skills, may therefore not be making the most cost-effective use of scarce resources. Exploratory use of ICT within open-ended project work, reflecting the kind of use that computer-literate adults make of ICT, might be more likely to provide the context for children's rapid development of a complex range of ICT skills. Torgerson, C. and Zhu, D. (2003). A systematic review and meta-analysis of the effectiveness of ICT on literacy learning in English, 5-16. More specifically, the review indicated that whilst there is not enough evidence about the benefits of ICT on literacy outcomes, there is also not enough evidence about its potential harmful effects on literacy development. The authors conclude that large robust trials need to be conducted to confirm the benefits of ICT on literacy. Otherwise, the continued high investment in ICT may be a waste of money.

Need And Significance Of The Study

Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. So it is very necessary to conduct such type of research which will give clear idea of Knowledge of ICT of secondary students and its impact on their Academic performance. According to the Researcher the study would be significant as follows: It would provide an idea to secondary teachers what is the level of Knowledge of Information and Communication Technology and Academic Performance of Secondary students and what they can do for Knowledge of ICT among secondary students to increase their academic performance.

Statement Of The Problem

“Knowledge of Information and Communication Technology and Academic Performance of Secondary students- A Comparative Study”

Definitions of Variables:

Information and Communication Technology: Information and Communication Technology which consists of electronic devices and associated human interactive materials that enable the user to employ them for wide range of teaching-learning processes in addition to personal use.

Knowledge: Knowledge is a term referring to the ability to recognize, to feel, or to be conscious of events, objects or patterns.

Academic Performance: Academic performance refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers.

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Objectives Of The Study

1. To study the level of Knowledge of Information and Communication Technology of G.S.E.B and C.B.S.E Secondary school students.
2. To study the level of Academic Performance of Information and Communication Technology of G.S.E.B and C.B.S.E Secondary school students.
3. To compare Knowledge of Information and Communication Technology of G.S.E.B and C.B.S.E Secondary school students.
4. To compare Academic Performance of Information and Communication Technology of G.S.E.B and C.B.S.E Secondary school students..

Hypothesis

1. There is no significant difference in the Knowledge level of Information and Communication Technology of G.S.E.B. and C.B.S.E Secondary school students.
2. There is no significant difference in Knowledge Performance of Information and Communication Technology of G.S.E.BS and C.B.S.E Secondary school students.

METHODOLOGY

The present study is descriptive method of the comparative type. It aims at studying and describing the level of ICT Knowledge and Academic Performance of ICT of G.S.E.B and C.B.S.E Secondary school students. The standard IX and X secondary school students have been considered for the present investigation.

Sample

For the present study 70 secondary school students studying in English medium schools were selected. Students studying in Standard IX and X of G.S.E.B, and C.B.S.E Board were included. These students were selected randomly from the schools Ahmadabad and Gandhinagar.

Tool of Research

In order to study the variables – Knowledge of ICT and Academic Performance of ICT tool was constructed by the researcher. In the tool five aspects were taken 1) Knowledge about Computer 2) Knowledge about Internet 3) Knowledge about Broadcasting Technology (Radio and Television) 4) ICT Knowledge (Overall) 5) Knowledge Performance of students of ICT. 120 statements are divided into above five areas. It is five point rating scale having options strongly disagree, Disagree, Neutral, Agree, Strongly Agree.

Data Analysis

For the inferential Analysis the hypotheses was analyzed using the appropriate statistical technique like t-test. To compare the Knowledge and academic performance of G.S.E.B and C.B.S.E board Students t-test was applied.

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Table 1 – Mean SD and t-value of Knowledge about Computer

School	N	Mean	S D	t-value	Remark
G.S.E.B	40	15.87	3.870	0.147	NS
C.B.S.E	30	16.05	4.590		

Hypothesis is accepted, there is no significant difference in Knowledge about Computer in G.S.E.B and C.B.S.E school students.

Table 2 - Mean, SD and t-value of Knowledge about Internet

School	N	Mean	S D	t-value	Remark
G.S.E.B	40	15.86	4.437	3.45	S
C.B.S.E	30	16.45	3.945		

Significant at 0.05 level

Hypothesis is rejected; there is significant difference in Knowledge about Internet in G.S.E.B and C.B.S.E school students.

Table 3 – Mean, SD and t-value of Knowledge about Broadcasting Technology (Radio and Television)

School	N	Mean	S D	t-value	Remark
G.S.E.B	40	71.67	4.511	1.624	NS
C.B.S.E	30	69.48	4.088		

Hypothesis is accepted, There is no significant difference in Knowledge about Broadcasting Technology (Radio and Television) in G.S.E.B and C.B.S.E school students.

Table 4 – Mean, SD and t-value of ICT Knowledge (Overall)

School	N	Mean	S D	t-value	Remark
G.S.E.B	40	17.67	3.860	3.147	S
C.B.S.E	30	16.85	4.690		

Significant at 0.05 level

Hypothesis is rejected; there is significant difference in ICT Knowledge (Overall) in G.S.E.B and C.B.S.E school students.

Table 5 – Mean, SD and t-value of Academic Performance

School	N	Mean	S D	t-value	Remark
G.S.E.B	40	68.55	3.871	3.984	S
C.B.S.E	30	73.10	3.691		

Significant at 0.05 level

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Hypothesis is rejected, There is significant difference in Academic Performance in G.S.E.B and C.B.S.E school students.

Scope and Delimitations of Study:

The present study covers students studying in Std IX and X only, in the schools (aided and unaided) of Ahmadabad and Gandhinagar. The present study includes students studying in the G.S.E.B and C.B.S.E Boards only. The sample for the study comprise of students with English as their medium of instruction and not any other medium. The present study studies all the variables with respect to the students and not their teachers or peers.

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DISCUSSION

The ICT facilities provided to the C.B.S.E school students are more as compared to G.S.E.B board school students. The level of Knowledge and academic performance of C.B.S.E students is higher than G.S.E.B board school students, In C.B.S.E schools ICT is taught from first grade as it is not in G.S.E.B schools and there is lack of trained ICT teachers also.

FINDINGS

1. It is found from the study that 62% secondary students have desirable level of Knowledge of Information and Communication Technology.
2. It is found from the study that 78% secondary students have desirable level of Academic Performance.
3. It is found from the study that use of Internet by C.B.S.E students is more (65%) than the use by G.S.E.B (35%) board students.
4. There is significant difference in Knowledge of ICT and Academic Performance of Secondary students with respect to school types.

CONCLUSION

There is significant difference between the G.S.E.B and C.B.S.E school student's Academic performance and level of Knowledge of ICT. It proves that type of institution influences on Academic performance of secondary students. Therefore schools should provide ICT facilities to students irrespective of school type.

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Conflict of Interests

The author declared no conflict of interests.

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An Investigation on the Factor Structure of Schutte Self Report Emotional Intelligence Test in Indian Student Sample

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ABSTRACT

Schutte et. al., (1998) developed and validated a measure of emotional intelligence called as SSEIT. From a pool of 62 items, Schutte et. al., (1998) extracted 33 items which were proposed to be homogenous in nature. In simple words, uni-dimensionality has been identified in Schutte et. al., (1998)'s work. This study attempts to find the factor structure of SSEIT in the Indian sample. Using exploratory factor analysis, a four factor structure model of SSEIT is reported. A four factor model has been hypothesized, which is tested using confirmatory factor analysis. The model is found to be fit with the necessary indices falling within the acceptable limits.

Keywords: *Emotional intelligence, SSEIT, Exploratory factor analysis, Confirmatory factor analysis.*

Mayer and Salovey (1997) have defined emotional intelligence as “the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth”, which acted as a base for the revised four factor model of the. The four factor model of emotional intelligence views emotional intelligence based on the four factors namely emotional perception, emotional facilitation, emotional knowledge and emotional growth. This four factor model emphasizes more on cognition. As the concept of emotional intelligence has been conceptualized in different ways, it has resulted in confusion on the conceptualization and the measurements (Roberts, Zeidner and Mathews (2001); Bastian, Burn and Nettelbuck, 2005). The emerging empirical evidences have not kept place with these theoretical propositions, it has lead to claims that majority of emotional intelligence studies are carried out in theoretical vacuum (Perez, Petrides and Furnham, 2005).

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SSEIT

Based on the three factor model of Salovey and Mayer (1990), Schutte et.al. (1998) have designed the Self Report Emotional Intelligence scale called Schutte Self Report Emotional Intelligence scale (SSEIT). Schutte et al (1998) generated a pool of 62 items based on the Salovey and Mayer (1990)'s theoretical three factor model of emotional intelligence. These 62 items were administered to 346 participants of United States in a five point scale where '1' represented 'strongly disagree' and '5' represented 'strongly agree'. From the responses collected, out of the 62 items 33 items loaded on a single factor with loadings 0.4 and above. Hence they designed the scale with 33 items out of which 3 items are reverse scored. The test – retest reliability (0.78), internal consistency (Cronbach's alpha 0.87) predictive validity (predicted grade point average in school students $r = 0.32$, $p < 0.01$), and discriminant validity (with Big Five personality traits) of the scale has been checked by them and reported to be stable and acceptable.

This is one of the few inventories that is available for the public. SSEIT gives some advantages on scoring, reliability, and emphasis on typical performance when compared to other measures of EI (Gignac et al, 2005). SSEIT is also widely used in research across countries (Naeem and Muijtjens, 2015; Tharbe, Mun and Sumari, 2015). But SSEIT has got certain shortcomings as Schutte et.al., (1998) have used the principal component orthogonal – rotation factor analysis in extracting the 33 items which had 0.4 and above loadings. Hence by using an exploratory analysis alone they concluded the factor structure of the 33 items as uni-dimensional which represented the three sub factors of emotional intelligence namely recognition of emotions, regulation of emotions and utilization of emotion. They also argued that as roughly equal number of items on the three factors of emotional intelligence could be evolved after the factor analysis, emotional intelligence could be considered as homogeneous in nature. They also argued on the conceptual parsimony of the one factor generated with 33 items. But all the 62 items with which they started their analysis and their argument of three factor model of emotional intelligence stresses on the three distinct factors which makes emotional intelligence as a latent construct. They concluded the one factor solution for SSREI which resulted in three different sub categories. In case the three different categories are as they have not also confirmed the factor structure of SSEIT by Confirmatory Factor Analysis (CFA), further analysis on the factor structure of SSEIT has been guaranteed.

Factor Structure of SSEIT

Item level factor structure of the SSEIT has been attempted by many researchers and the results vary. Even some contradictory results have been reported. The results include a uni-dimensional structure (Schutte et.al., 1998), three dimensional structure (Naeem and Muijtjens, 2015) four dimensional structure (Petrides and Furnham 2000, Saklofske, Austin and Minski 2003), five dimensional structure converging into a single construct of emotional intelligence (Ng et al.,

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2010, Gong and Paulson, 2016), and six dimensional structure which was further reduced to four dimensions (Gignac et al 2005). Saklofske, Austin and Minski (2003)'s study results corroborated closely with the factor solution obtained by Petrides and Furnham.

The present study

Though majority of the studies have reported four factor structure, the factor items remain to be different. Hence the convergence of items on the four factor structure could always be analyzed and this study attempts it. The minimal usage of CFA on the factor structure has also guaranteed further studies on this area. Hence this study tries to evolve the factor structure using Exploratory Factor analysis (EFA) and further tries to confirm the factor structure using CFA in the Indian context.

METHOD

Respondents

The study was conducted among 860 students across various educational institutes in India. The educational institute has been chosen randomly. In total, 599 males and 231 females participated in this study. The mean age of the participants is 21.02 years.

Tool

The study used the self report questionnaire of Schutte et.al., (1998) which has 33 items with three negative items (5, 28, and 33) that has to be reverse scored. The responses are indicated on a Likert scale.

RESULTS

Exploratory Factor Analysis

The exploratory factor analysis resulted in a four factor structure with 58% of the total variance (Table I). Only the factor loadings above 0.4 have been extracted (Schutte et.al., 1998). Out of the 33 items, items 4, 5, 12, 21, 31 could not load on any of the four factors extracted. Though the study by Petrides and Furnham (2000) reported for all item loading in a four factor structure, in this study the four factors extracted with the deletion of five items more or less corroborated with their factors, hence the same names of the factors has been followed in this study also. The four identified factors are Appraisal of Emotions, Social Skills, Emotion Utilization and Optimism / Mood Regulation.

When tested for the uni-dimensional structure for the model, it could account only for 24% of total variance. Hence the four factor extracted from exploratory factor analysis has been taken for further confirmation.

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Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) allows a researcher to test the relationship between the observed variable and their underlying latent constructs. In this study, the uni-dimensional and the four factor structure as extracted by the exploratory factor analysis have been tested to check the suitability of the structure of SSEIT in the Indian context.

CFA was done with the 28 items to test the uni-factor structure of SSEIT, using AMOS 7.0. The cut offs for accepting a model for Tucker-Lewis Index (TLI), Non-Normed Fit Index (NNFI), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), and Comparative Fit Index (CFI) is greater than or equal to 0.9 (Byrne 1989, Hu and Bentler, 1995), Root Mean Squared Error of Approximation (RMSEA) is less than or equal to 0.05 and Root mean Residual (RMR) is less than or equal to 0.06. Some authors have suggested that the value of RMSEA can be taken for consideration till 0.8 (Browne and Cudeck, 1993). The cut off for the ratio of the chi-square to its corresponding degrees of freedom is between 1 and 5 (Bollen, 1989).

The fit indices for the various dimensionalities of SSEIT are given in table II.

From table II, it is inferred that the fit indices for the uni-dimensional structure of Schutte et.al., (1998), TLI of 0.64 is far below 0.9, CFI (0.67) is less than the acceptable limit of 0.9, and NNFI (0.60) is also less than the acceptable limit of 0.9. As far as the absolute fit indices are concerned RMSEA (0.06) is greater than the acceptable limit of 0.05. RMR (0.06) of uni-dimensional structure of Schutte et.al., (1998) is approximately equal to 0.06 which is not an acceptable limit. Hence the uni-dimensional structure of Schutte et.al., (1998) has reported most fit indices which are wide of their respective recommended values thereby indicating a lack of fit for uni-dimensionality.

The four dimensional structure proposed in this study produced a χ^2/df (3.54) which is below the threshold of 5, hence it falls in the acceptable limit. The absolute fit indices indicate a good model fit as RMR (0.05) and RMSEA (0.58) also reported to fall within acceptable limits. The incremental fit indices also indicate a good model fit as CFI (0.93), TLI (0.91), and NNFI (0.89) are within the acceptable limits.

From table II it could be inferred that the hypothesized model has shown a good fit as all the indices considered are within the acceptable limits.

DISCUSSION

Hence in this study a uni-dimensional structure as suggested by Schutte et.al., (1998) who had developed SSEIT could not be recovered. A four factor model of emotional intelligence that has been identified in this study is in conjunction with the models of Saklofske, Minski, and Austin

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(2003) and Petrides and Furnham (2000). This hypothesized model has been proved to be superior when compared to the uni-dimensional structure. While there are little differences in the item structure when compared to other similar studies, this study has added support for the robust usage of SSEIT across the cultural settings with differing factor structure. As the number of items on the four factors is also more or less the same, revision of SSEIT based on the retrieved four factor model can be made.

Though the hypothesized model has been tested using CFA, cross validation on the results across other populations could be made. Also the study has not attempted to test the other reliability and validity tests like test-retest reliability, predictive and discriminant validities in the taken population. The five items which has not been loaded above 0.4 can be taken into account for any modification of the present SSEIT scale. The SSEIT scale is also imbalanced on the number of positive items (which are 30 in numbers) and negative items (which are only 3 in numbers), which can also act as a basis for modification of the scale. The study has attempted to test only the factor structure underlying SSEIT and not the suitability of the scale in the Indian population. The study has also used SSEIT in English, but not in the native language of the respondents. Further study can be done using SSEIT with other tools of emotional intelligence and the suitability of the scale can be tested. The other personality tools can also be used to report validity of SSEIT vis - a-vis the personality factors.

A detailed study with a greater sample can be attempted to have a better understanding of the factor structure of SSEIT. Though the sample size of this study is limited, the sample is not from a unique educational institute in India which is a major advantage of this study. Another limitation of this study is the non- accountability of the first order and second order factors, which can also be attempted in further studies. Although there are some limitations in this study, the study could through insights in the factor structure of SSEIT in the Indian sample, which has not been attempted before.

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Conflict of Interests

The author declared no conflict of interests.

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Table I Results of Factor Analysis

	Appraisal of Emotions	Social Skills	Emotion Utilization	Optimism
1		.76		
2				.61
3				.48
4				
5				
6			.48	
7			.54	
8		.77		
9	.57			
10				.50
11		0.73		
12				
13		.48		
14				.44
15	.63			
16		.74		
17			.54	
18	.62			
19	.77			

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	Appraisal of Emotions	Social Skills	Emotion Utilization	Optimism
20			.62	
21				
22	.71			
23				.50
24		.55		
25	.66			
26		.63		
27			.52	
28				.56
29	.74			
30		.51		
31				
32	.72			
33				

Note: Factor loadings greater than 0.4 are shown. Items in SSEIT are given in the same order by item numbers.

Table II, Indices for Tested Models

Structure of SSEIT	TLI	CFI	NNFI	RMSEA	RMR	GFI	χ^2/df	AGFI
Uni-Dimensionality of Schutte et.al., (1998)	0.64	0.67	0.60	0.06	0.06	0.73	4.32	0.72
Four Factor Hypothesized Model	0.91	0.93	0.89	0.04	0.04	0.96	2.37	0.95

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Adjustment Problems among Medical Students

Acharya Pratik I^{1*}

ABSTRACT

The present study is intended to examine the adjustment problems of Medical students from C U Shah Medical college of Surendranagar. Adjustment is a process by which a living organism maintains, a balance between the needs and the circumstances. The variables included for the study apart from adjustment (home, health, social, emotional) are gender and class. The study was conducted on a sample of 96 students (48 boys, 48 girls) randomly selected from the C U Shah Medical college of Surendranagar, Gujarat, for this purpose of investigation “Bell’s adjustment inventory (school form) revised by Oza R. K. in Hindi” (1994) was used. The obtained data was analyzed through ‘t’ test and ‘F’ test to know the different between gender, class of medical students. The results shows that there is significant difference between boys and girls medical students in term of their health, social, and emotional adjustment in the 0.01 level of probability. As per mean score boys have better health, social and emotional adjustment then girls. Results are also indicates that there is significant difference in class (first to fourth year) of medical students in term of their home, health, social and emotional adjustment in the 0.01 level of probability. Mean scores suggest that fourth year students have poor home adjustment and third year students have poor health, social, and emotional adjustment then others.

Keywords: *Level Of Adjustment, Boys And Girls, First To Fourth Year*

The term of adjustment is often used as a synonym for accommodation and adaption. Strictly speaking, the term denotes the results of equilibrium, which may be affecting by either of these processes e.g., (Monroe P. (ed.), 1990) it used to emphasize the individual’s struggle to along or survive in his or her social and physical environment.

Adjustment is the process of finding and adopting modes of behavior suitable to the environment or the changes in the environment (Good C.V., 1959), with which a living organism maintains a balance between its needs and the circumstances that influence the

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satisfaction of these needs. (Shafer, 1961), is a way in which the individual attempts to deal with stress, tensions, conflicts etc., and meet his or her needs. In his process, the individual also makes efforts to maintain harmonious relationship with the environment (Kulshrestha S.P., 1979). In adjustment, crucial factors are individual and environment. Individual factors are heredity, biological and psychological. Whereas, environment includes all the social factors (Raju M.V.R. & Khaja Rahamtulla T., 2007).

In examining perceptions of the undergraduate experience, it is also unlikely that college experience would affect all individuals to the same degree. For example, it has been found that approximately one-quarter of incoming freshman do not return to the same institution in the following year, with half of these students making decision to leave in the first six weeks (Gardner J.N. Upcraft M., 1989). Students who withdraw during first semester often cite emotional reasons for dropping out. (Rickinson B, & Rutherford D, 1995). Clearly, some students are better able to adjust to the undergraduate experience than are others. Such variability in responses to college emphasizes the importance of understanding what factors contribute to negative reactions to the college experience and whether undergraduate students experience similar changes in psychological and physical health as law students and medical students. Although previous research has suggested several factors that may contribute to the successful adjustment of college students (as will be discussed below), it has not been adequately established whether any of these factors (e.g., self-esteem, coping tactics, perfectionism, optimism, and extroversion) play a negative or positive role in positive student health behaviors.

In an analysis of numerous investigation of the problem of college students (Strang R., 1937) classified their difficulties in adjustment under five main groups, Intellectual & perceptual difficulties, physical and structural difficulties, emotional difficulties, social difficulties, vocational and economical difficulties.

Medical college student have main problems of coping with the environment, time pressure, fear of failure, these all effects on students adjustment. (Shaw D, and Others, 1999) Other factors may of fact on the student are effect of medical school on personality, marital conflicts, family pressure, language, economical, social, family, emotional and health problems.

Adjustment problems in medical student is most common problem in the whole world because of excessive academic pressure, feeling of dehumanization, lack of personal freedom, and having chosen wrong profession. (Mary p, 2007) This research can help us to find out the main adjustment problems among medical students. Bell's adjustment inventory (R.K., 1994) is use for this research. It can help us to find out home, health, social, and emotional adjustment among medical students.

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Definition

Adjustment

1. Adjustment process is a way in which the individual attempts to deal with stress, tensions, conflicts etc., and meet his or her needs. In this process, the individual also makes efforts to maintain harmonious relationship with the environment.

(Kulshrestha S.P., 1979)

2. Adjustment is the process of finding and adopting modes of behavior suitable to the environment or the changes in the environment

(Good C.V., 1959)

3. Adjustment is the process by which a living organism maintains a balance between its needs and the circumstances that influence the satisfaction of these needs.

(Shafer, 1961)

Medical College

1. “Medical college” means any institution by whatever name called in which a person may undergo a course of study or training including any postgraduate course of study or training which will qualify him for the award of a recognized medical qualification.(Notification, Gazette Of India, 2000)
2. A graduate school offering study leading to a medical degree (The free dictionary by farlex, 2014)

Student

1. A person following a course of study, as in a school, college, university, etc (The free dictionary by farlex, 2014)

Variables

Independent variable

1. Gender: boys, girls,
2. Standards: First to fourth year of Bachelor of Medicine, Bachelor of Surgery (MBBS)

Dependent variable

1. Level of home, health, social, and emotional adjustment

Controlled variable

1. Students from C. U. Shah Medical College, Surendranagar city (Gujarat state, India)

Objectives

1. To know the level of home, health, social and emotional adjustment in gender and class of under graduate medical students.

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Hypothesis

1. There is significant difference between boys and girls under graduate medical students in term of their home adjustment
2. There significant difference between boys and girls under graduate medical students in term of 3. their health adjustment
3. There significant difference between boys and girls under graduate medical students in term of their social adjustment
4. There is significant difference between boys and girls under graduate medical students in term of their emotional adjustment
5. There is significant difference between boys and girls under graduate medical students in term of their home, health, social, and emotional adjustment
6. There is significant difference between first to fourth year of under graduate medical students in term of their home adjustment
7. There is significant difference between first to fourth year of under graduate medical students in term of their health adjustment
8. There is significant difference between first to fourth year of under graduate medical students in term of their social adjustment
9. There is significant difference between first to fourth year of under graduate medical students in term of their emotional adjustment
10. There is significant difference between first to fourth year of under graduate medical students in term of their home, health, social, and emotional adjustment
11. There is significant difference between boys and girls and first to fourth year of under graduate medical students in term of their home, health, social, and emotional adjustment

METHOD

Sample

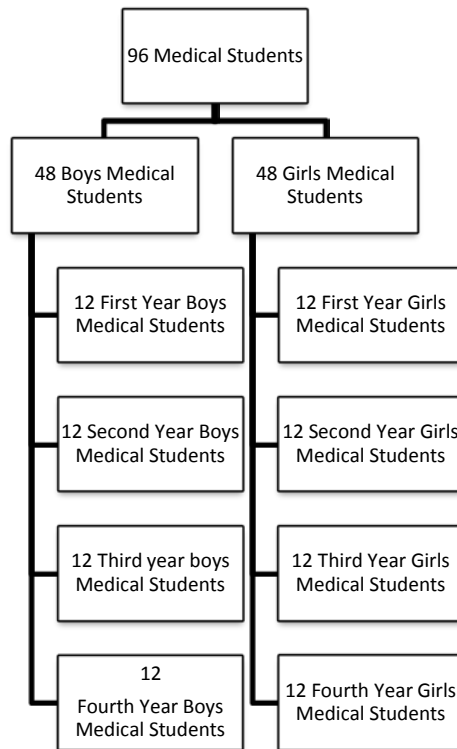
The sample consisted of 96 under graduate medical students. Among them 48 participants are boys and 48 participants are girls under graduate medical students taken from C U Shah Medial College, Surendranagar. Participants were selected by using the stratified random method. The data were stratified as per class and gender. For this purpose of study, comparative research design is used.

Tools

Bell's adjustment inventory, student form is revised in Hindi by. Oza R. K. The reliability coefficient were determined by split- half and test-retest method. Items were calculated and correlated by spearman brown formula the reliable of this scale is up to 0.84 in home health, social and emotional area of adjustment. This adjustment inventory was validated against K.Kumar's adjustment inventory. Validity is up to 0.72 in above four areas. This scale was conducted on a sample of 400 cases of four educational groups.

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1. Plane for Data Collection



Data analysis

For statistical analysis, the obtained data from 96 Medical college students were analyzed with the help of “t” test to study the difference of home, health, social, and emotional adjustment of boys and girls Medical students. And “F” test to study the difference of home, health, social, and emotional adjustment of first to fourth year of medical students. Significant differences were examined at 0.01 level of probability.

RESULT AND DISCUSSION

Table 1

Area of Adjustment	Gender	Mean	SD	‘t’ value
Home adjustment	Boys	7.42	2.75	1.28
	Girls	8.19	3.15	
Health adjustment	Boys	6.31	4.37	3.37*
	Girls	9.69	5.36	
Social adjustment	Boys	15.58	3.60	2.76*
	Girls	18.61	3.59	
Emotional adjustment	Boys	9.33	4.89	3.69*
	Girls	13.38	5.82	

* $p < .01$ DF=94, ‘t’ value of table(0.01p)= 2.63.

Table 1 provides result regarding the influence of gender of home, health, social, and emotional adjustment. It can be noted from the table that gender dose not have a significant influences on home adjustment. There is not any significant difference between boys and girls medical students in term of their home adjustment.

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It also provides results regarding the influence of gender on health adjustment. The result indicated a significant difference is observed between boys and girls in term of their health adjustment, on the health adjustment girls have higher mean scores then the boys indicating that boys have better health adjustment. Thus, it can be observed that boys are significantly better adjusted than girls are. Girls have high fears with new situation, severe headache, sleep disturbance, and gastric problems. Some of the girls are also complaining about different illnesses.

Table 1 also provides results regarding the influence of gender on social adjustment. The result indicated a significant difference is observed between boys and girls in term of their social adjustment, on the social adjustment girls have higher mean scores then the boys indicating that boys have better social adjustment. Thus, it can be observed that boys are significantly better socially adjusted than girls are. Girls have high stage fear, uncomfortable in-group conversation, difficulty in conversation with unknown person, and ignore leadership.

Table-1 provides results regarding the influence of gender on emotional adjustment. The result indicated a significant difference is observed between boys and girls in term of their emotional adjustment, on the emotional adjustment girls have higher mean scores then the boys indicating that boys have better emotional adjustment. Thus, it can be observed that boys are significantly better adjusted than girls are. The analysis of the individual items of the emotional adjustment dimension indicated that boys as camper to girls have not expressed any fear to go out alone in nights, see a snack or control their anger wherever things are not happening according to the wish. Similar finding are reported by (Kasinath H.M., 1990), (Pradhan G.C., 1993), and (Raju M.V.R. & Khaja Rahamtulla T., 2007).

Table 2

Area of Adjustment	Mean score				F Value
	First Year MBBS (N=24)	Second Year MBBS (N=24)	Third Year MBBS (N=24)	Fourth Year MBBS (N=24)	
Home Adjustment	6.63	6.92	8.83	9.08	4.05*
Health Adjustment	7.67	6.38	10.75	7.21	4.59*
Social Adjustment	18.75	15.63	18.79	17.21	5.41*
Emotional Adjustment	11.79	8.33	13.96	11.33	5.65*

* $p < .01$ $DF_1 = 3$, $DF_2 = 92$ 'F' value of table(0.01p)= 3.98

Table 2 provides results regarding the influence of class on home adjustment. The result indicated a significant difference is observed in class (first to fourth year) in term of their home adjustment, on the home adjustment fourth year medical student have higher mean scores then the other , indicating that fourth year students have poor home adjustment.

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Thus, it can be observed that fourth year students are significantly poor adjusted in home than others are. Fourth year students have excessive study pressure from their families and Adjustment problems with their family members.

It also provides results regarding the influence of class on health adjustment. The result indicated a significant difference is observed in class (first to fourth year) in term of their health adjustment, on the health adjustment third year medical student have higher mean scores than the other, indicating that third year students have poor health adjustment. Thus, it can be observed that third year students are significantly poor health adjustment than others are.

Table 2 also provides results regarding the influence of class on social adjustment. The result indicated a significant difference is observed in class (first to fourth year) in term of their social adjustment, on the social adjustment third year medical student have higher mean scores than the other, indicating that third year students have poor social adjustment. Thus, it can be observed that third year students are significantly poor social adjustment than others are.

It also provides results regarding the influence of class on emotional adjustment. The result indicated a significant difference is observed in class (first to fourth year) in term of their emotional adjustment, on the emotional adjustment third year medical student have higher mean scores than the other, indicating that third year students have poor emotional adjustment. Thus, it can be observed that third year students are significantly poor emotional adjustment than others are.

CONCLUSION

In the conclusion of the given research, we can say that there is not any difference in home adjustment and a truthful difference can be seen in health, social, and emotional adjustment in boys and girls medical students. The result shows that boys have better health, social, and emotional adjustment than girls.

We can also say that there is a significant difference in class in term of their home, health, social, and emotional adjustment. The result shows that fourth year student have poor home adjustment and third year students have poor health, social, and emotional adjustment than other students.

Limitation of the study

Limitation is, open able study, sample size is very small, and it is limited to one institute only.

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Future Direction

Multi centric study with large sample size will be more conclusive control study with student from other faculty and general population could bring more definitive result.

Suggestions

This study suggest that,

1. There should be adequate number of trained counselors both male and female posted in medical colleges.
2. Counseling will be easily available confidentially.
3. Adequate facility for relaxing, recreation, and play is as important as teaching.

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Conflict of Interests

The author declared no conflict of interests.

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Buffering Power of Spirituality against Death Anxiety

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ABSTRACT

Spirituality, being a virtuous approach against dark materialistic world has an ability to transcend any phase of life. As a matter of fact during old age the fear of death generally overpowers elderly. They overcome this anxiety successfully by moving and focusing towards spirituality, which is considered a path leading to piousness and inner peace. Experience of spirituality helps them to think beyond this materialistic world, where old age is not considered as an end to life, but a preparation for the welcome of a new life. Thus with these ideas in mind, the present study was an attempt to explore the relation between spirituality and death anxiety among geriatrics. A purposive sample of 200 elderly both male and female with the age range of 60-80 years was drawn from Rohtak city, Haryana. The descriptive statistics indicated the high level of spirituality and average level of death anxiety among elderly. Further, correlational analysis showed that there existed a negative correlation between spirituality and death anxiety which indicates the healing power of spirituality among elderly.

Keywords: *Buffering, Power, Spirituality, Death Anxiety*

Aging is a natural and universal phenomenon. It is the ultimate stage of human development where development comes to a halt. In fact, it is supposed to be a period of decline and degeneration. Though aging is a continuous process, it becomes more pronounced during late adulthood. In spite of the societal stereotype views about old age as a time of inactivity, physical and mental decline, gerontologists, who study aging, are beginning to present quite a different picture of elderly. Age, and especially “old age” is partly a matter of subjective perception. The boundary between middle and old age is not clearly marked by any physical or intellectual transformation. Traditionally, the age of retirement is viewed as the beginning of old age. Now that the life expectancy has increased. According to estimates made by the technical growth on population projections, the likely number of old people in India will be around 323 million by 2050 (Census of India, 2011). The recent census of India (2011) reported the percentage of elderly people to total population 8.6 percent.

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Buffering Power of Spirituality against Death Anxiety

Old people generally overpower with negative feelings. Death anxiety is the most prevalent fear gripping old people. Death anxiety refers to the fear and apprehension of one's own death. It is the neurotic fear of loss of the self which has an intense state of parallel feelings of learned helplessness and depression. Man's awareness of his own death produces anxiety that can only be dealt with by recognizing one's individuality. According to existential analysts, man's awareness of death gives him the responsibility for finding meaning in life. Death is a biological, personal, socio-cultural and existential phenomenon. The biological death is useful to distinguish between the process of aging and the ending called death. Yet when the actual time comes, and the individual faces death alone, the psychological reactions appear to be remarkably similar. Kubler(1969) had found that in the majority of persons, almost regardless of age, the personal reactions to imminent death pass through five phases such as denial, anger, bargaining, depression and acceptance(although not every individual achieves the final phase). Numerous studies revealed that the effect of age (Suhail & Akram, 2002); negative attitudes (Depaola, Griffin, Young & Neimeyer 2003)); physical appearance concern and fear of losses (Benton, Christopher and Walter, Ghufra and Ansari, 2008); living circumstances (Madwant, Singh and Singh,(2007); low self-esteem, little purpose in life, and poor mental well-being (Missler, Stroebe, Geurtsen, Mastenbroek, Chmoun, and Houwen, 2012); spouse death(Momtaz, Haron, Ibrahim & Hamid, 2015) all affect the magnitude of death anxiety.

Spirituality is regarded as an inner strength through which the individual may move beyond self-interest and make meaning of both lived experiences and transcendent (Staton, Shoy & Byock, 2001) provides the aging adult with another resource for finding meaning in the stage of emotional and physical distress that often accompany the aging process and dying process. In the stage of the challenging existential experiences of aging, loss disability and dying that can work to isolate and aging adult from resource of support, spirituality can operate as a self-transcendent resource with which the individual can grow, find meaning, and achieve sense of completion (Wong, 2008), Furthermore, spirituality has been shown to be related to greater physical, psychological and mental health (Chibnall , Viddeen, Duckro & Miller, 2002, Meisnhelder and Chandler's, 2002) and subjective well being(Micozz,2006; Fry,2000); generativity and wisdom(wink, 2008), satisfaction with life (Wills,2009) and lower level of depression(Han and Richardson,2010, Rykkje; Eriksson & Rahol2013). In numerous studies spirituality has found negative correlated with death anxiety in geriatrics (Thorson, and Powell 2000; Suhail & Akram, 2002; Harding, Flannelly, Weaver, & Costa, 2005; Jong, Bluemke & Halberstadt, 2013, Henrie& Patrick, 2014).

Spirituality plays a pivotal role in decreasing depression by fostering positive beliefs and behaviors while lessening the impact of negative situation. With such vast acknowledging of literature the following problem was selected for the present research work.

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Problem

To explore the relation between spirituality and death anxiety among geriatrics.

Objectives of the study

The present study was carried out with the following objectives:

1. To assess the level of spirituality and death anxiety of geriatrics.
2. To examine the relationship between spirituality and death anxiety among geriatrics.

Research Design

A correlational design was used in the present study

METHOD

Participants

A purposive sample of 200 old people of both sex (male and female) aged 60-80 years was selected from the urban area of Rohtak city of Haryana.

Tools

1. **Spirituality Scale.** (Biswas and Biswas, 2006).

It consists of 21 statements, which included centrality of god, ethical and moral values, the cyclical nature of pain and pleasure in one's life and power of meditation. All items are to be rated on 4 point scale ranging from strongly agree to strongly disagree. The possible score range on the scale can be 21 to 84. The cronbach alpha for the measure has .84.

2. **Death Anxiety scale.** (Templer, 1970).

It consists of 15 questions and answers which are based on yes or no option while each question score of 1 or 0. The total score is between maximum 15 and minimum zero. Some of the questions directly measures death anxiety and its related issues such as disease, world war, speed of time passing etc. the test- retest reliability is .83 and internal consistency is.76. Hindi version of the scale was prepared by investigator by using back to back translation technique in which first of all Hindi was done by the experts of Hindi language and then final format of Hindi was prepared and that was translated into English language by the two experts of English language and further final format of English was prepared. Then translated Hindi as well translated English and original English versions of the same scale were administered on sixty adult participants aged 40-60 years. After the gap of one week each, while taking the consideration of counterbalancing. The test–retest reliability was found to be .79 and the cronbach alpha was.83. It is highly valid scale for adult population.

Procedure

First of all English version of death anxiety scale was translated into Hindi language by using back translation technique. Then, the old people were contacted at banks, parks, colonies and religious places of the Rohtak city and the rapport was established with them. After seeking their

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permission, the relevant instructions related to each questionnaire/scales were given to them. While filling the proformas in a single seating, the adequate time gap between questionnaire/scales was given. Further scoring was done as per norms and data were subjected to suitable statistical analysis.

RESULTS AND DISCUSSION

Obtained scores on spirituality and death anxiety were analyzed by using descriptive statistics with the help of SPSS 16 (statistical package for the social sciences) and have been shown in below in Table 1.

Table1: Descriptive statistics of the scores obtained on test of spirituality and death anxiety of geriatrics.

Variable	Mean	Standard deviation (SD)	Interpretation	Range of scores
Spirituality	72.12	8.77	High	21-84
Death Anxiety	5.98	3.54	Average	0-15

From Table 1 it is apparent that old people have high levels of spirituality and average level of death anxiety as per norms of the scales. A number of earlier studies support that elderly people have high level of spirituality and low level of death anxiety (Thorson, and Powell ,2000; Suhail & Akram , 2002 Harding, et al., 2005; Jong, et al., 2013; Henrie & Patrick, 2014). Whereas in the current research work, though the level of spirituality appears to be high yet moderate level of death anxiety is found. High level of spirituality indicates their level of piousness, love, faith, a state of transcendence, mysticism, a sense of interconnectedness, awareness about the purpose and meaning of life etc. In other words through practical knowledge they appeared to have developed a power of intuition i.e. the power to sense of invisible world around them.

The moderate level of death anxiety reveals that they have accepted death as natural process, not much bothered about the end of life. It appears that they are mentally prepare to face inevitable death. As according to Freud's theory of thanatophobia, it is not actually death that people feared, because nobody believes in his/her death; as no one has experience death. Here old people who are expressing death-related fears (to some extent) are actually trying to deal with unresolved childhood conflicts, which they were unable to cope up (Freud). Further according to Erikson theory of psycho social development, the average level of death anxiety among old people may be attributed to their level of wisdom which they have gained through experiences of life and appear to be developed a state of "ego integrity" which helped them to accept the life as it is. They are not fully found to be depressive. As per terror management theory old people have been found to have an average level of death anxiety may be due to their attempts to deny death

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which unconsciously leads to collection of death anxiety, where the level of spirituality helps them to release the anxiety gradually.

Further in order to find out the correlation of spirituality and death anxiety of geriatrics. The Pearson's r was computed and has been shown in Table 2.

Table 2: Correlation of spirituality and death anxiety of geriatrics.

Variables	Spirituality	Death Anxiety
Spirituality	1.00	-.182*
Death anxiety		1.00

* $p < 0.01$

The perusal of Table 2 shows that spirituality is significantly negatively correlated with death anxiety ($r = -.182$, $p < 0.01$). However, the magnitude of correlation appears to very low. But somehow it may be stated that spirituality acts as a buffer against death. Spirituality act as an ointment to heal the wounds of life successfully. It enhances their physical, mental, psychological and social health, thus inculcating the feelings of hope and optimism in them. Such feelings help them to overcome a state of “learned helplessness” and further replace it with “learned optimism”. In other words there is rich empirical evidences to support that spiritual experiences help people to have excellent health, understand the meaning of life, happy, cheerful (Krishna Mohan, 1999); effective well-being, full involvement of daily tasks life (Wink et al., 2008), satisfaction with life (Wills, 2009) and rarely downhearted or depressed (Baetz et al., 2004). Spirituality plays an adaptive role in aging which helps them to lead a better quality of life resulting in longevity.

The current findings endorse some suggestions that though spirituality prepares the elderly to overcome death anxiety yet it appears to be have a weak correlation. So the other powerful moderators of reducing death anxiety such as enhancing the level of hope and optimism should be explored.

CONCLUSION

To summarize, it may be stated that elderly of contemporary society are found to be highly spiritual with average level of death anxiety. Spirituality has been found to be significantly negatively correlated with death anxiety.

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Conflict of Interests

The author declared no conflict of interests.

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Relationship between Occupational Stress, Coping Strategies and Job Satisfaction among Nurses working in General Hospitals and Psychiatric Hospitals

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ABSTRACT

The purpose of this research was to study the relationship between occupational stress, coping strategies and job satisfaction among nurses working in general hospital and psychiatric hospital. The sample consisted of 300 nurses (150 nurses from general hospital and 150 from psychiatric hospital) drawn from Hubli and Dharwad district hospitals, Chitradurga, Shimoga district hospitals of Karnataka. The primary objective of the study is to study the relationship between occupational stress, coping strategies and level of job satisfaction among nurses working in general hospitals and psychiatric hospitals. The participants were administered the occupational stress index developed by Prof. S. K. Srivastava and Prof. A. P. Singh, ways of coping questionnaire developed by Lazarus and Folkman (1989) and Job satisfaction questionnaire developed by C.N. Daftuar. The data were analyzed by using Pearson Product Moment Method of correlation to find out the relationship between these variables. The results of the study have shown that there is a significant positive relationship exists between the occupational stress, coping strategies and job satisfaction among nurses working in general and psychiatric hospitals.

Keywords: *Occupational stress, Coping strategies, Job satisfaction and Nurses*

Nursing is for the most part seen as stressful and demanding profession. It is both physically and mentally challenging. There is significant proof that nursing is a stressful occupation, which can prompt interruptions in both psychological and physical wellbeing and can disable professional practice:

Stress is a pervasive and tricky piece of daily life and in the workplace. It is a typical topic in nursing.

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1. There is a developing collection of proof, which accept that health care providers especially nurses experience stress throughout their work. Work related stress is characterized as the destructive physical and emotional reactions that happen when the prerequisites of the employment don't coordinate the capacities, reactions, or need of the worker.
2. Work place stress or job stress is characterized as any normal for the occupation environment that represents a risk to the individual, either over the top requests or lacking supplies to address the issue and lead to rising tension in a man.
3. Occupational stress exists in all professions. But, nursing has all the earmarks of being especially upsetting. In a review of more than 100 occupations, utilizing stress rating scale to look at work weights, nursing had one of the most elevated scores among the administration occupations.

Sources of stress for nurses can be categorized into four zones: workload, pressure from the organizations, interpersonal communications, and professionalism. In reality it is uncommon that only one source of stress is actually present in the circumstances. Sources of stress are much of the time interrelated and synergistic impacts are seen because of many of sources of stress. For instance, interpersonal conflicts might be because of organizational and administration issues. Recent studies have exhibited that Sources of work related stress among medical nurses fluctuate between regions, nations, organizations, divisions, nursing specialties and people. This has been credited to the diverse health systems, their culture, availability of resources, nature of work, distinctive educational levels, age, business contract, work experience and personality attributes (Lee and Wang, 2002; Lindholm, 2006; Peterson and Wilson, 2002).

Coping Strategies:

In terms of experience, Auerbach and Gramling (1998) found that coping skill is particularly an element of past experience, Kahn and Cooper (1993); concerning level, Syme (1975) has found that stress illness rates increased as people moved over the social level comparable with their educational level. The better educated and invested a man is, the less stress he feels (Sutherland and Cooper, 1990).

- One-fourth of workers view their jobs as the main stressor in their lives.
- Three-fourths of workers' trust the worker has more on-the job stress than an era back.
- Problems at work are all the more emphatically connected with health complaints than are some other life stressor—more so than even financial issues or family issues.

Epidemiologist Bengt et al, (2001) (University of Uppsala, Sweden) have been studying work related stress for 20 years says, that in Sweden stress among doctors is such an extent that their mental vitality has diminished and intellectual exhaustion (burnout) increased to critical levels.

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Robert Karasek (1979) says “How much control a person has over his work is significant on the grounds that it influences how well he adapts to the demands of his employment”.

Job Satisfaction

Job satisfaction is characterized as the level or degree to which employees like their works (Spector, 1997). Various segments of job satisfaction have been distinguished counting incorporating satisfaction with pay, potential for innovativeness, self-sufficiency, assignment personality, satisfaction with organizational promotion approach and their individual promotions, satisfaction with associates, and accessible proceeding with education openings. Past researchers have revealed a reverse or negative relationship between perceived stress and job satisfaction, that is, as job satisfaction increases, stress decreases (Sveinsdottir, et al., 2006; Zangaro and Soeken, 2007).

Job Satisfaction is an affective orientation that a worker has towards their work (Price, 2001). What makes a job fulfilling or uninspiring does not depend just on the nature of the occupation, additionally on the desires that people have of what their employment ought to give (Spector, 1997). Most published research from different nations shows that job satisfaction is a noteworthy indicator of nursing absenteeism, burnout, turnover and intention to quit (Cavanagh, 1990, Siu 2002, Yin and Yang 2002.). Thus recognizable proof of the components identified with job satisfaction and investigation of their consequences for job satisfaction can possibly help the development of employment strategies to enhance maintenance and decrease turnover.

Objective Of The Study:

- To study the inter-relationship between occupational stress, job satisfaction and coping strategies

Hypothesis Of The Study:

- There will be a significant relationship exists between occupational stress, job satisfaction and coping strategies.

Tools Used:

1. Demographic data sheet

A semi structured questionnaire developed by the researcher was administered to the selected sample to collect the necessary information such as, the participant's name, gender, age, class, religion, education level socio-economic status etc.,

2. Occupational Stress Index (OSI):

Occupational Stress Index (OSI) was used to measure occupational stress of nurses prepared by Prof. S. K. Srivastava and Prof. A. P. Singh of Department of Psychology, Banaras Hindu University, Varanasi. This standardized questionnaire has the reliability coefficient ascertained

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by Split half (odd-even) method and Cronbach's alpha- coefficient for the scale as a whole were found to be 0.937 and 0.90 respectively.

3. Coping Checklist:

Coping checklist was developed by Lazarus and Folkman(1989). The purpose of this checklist is to find out how people deal with or handle difficult situations that they have to face in their everyday life. The list provides some of the common used methods for handling stress and reducing stress. This scale aims at identifying preventive strategies for suicide prevention. Most of the suicides are impulsive at the stress situations. These situations are overcome through different coping patterns that are used consciously or unconsciously by everybody but sometimes it is difficult to develop a pattern of coping. Those coping methods by which they found some relief or solution to their problems are identified. There are 66 items, each statement you are using or not in stressful situation that indicates Not Used, Used Somewhat, Used Quite A Bit and Used a Great Deal.

Whether, each method is used or not in stressful situation is indicated as yes or no. It covers a wide range of cognitive, behavioral and emotional responses that are used to handle stress. There are eight subscales: confrontive coping, distancing, self controlling, seeking social support, accepting responsibility, escape avoidance, painful problem solving and positive reappraisal. Space is provided for providing their responses for each type of coping items.

4. Job satisfaction scale.

Job Satisfaction Scale developed by C.N. Daftuar consisting of 19 items including 2 which measure separately overall satisfaction with the company and overall satisfaction with the work was used for the purpose. The respondents were asked to rate each statement on a five point scale ranging from 5 (strongly agree) to 1 (strongly disagree).

The subject is asked after good rapport formation to attempt answering all statements. They were asked to give their responses on five point scale from strongly agree to strongly disagree. Instructions are printed on the cover page of the test booklet. It is good to reinforce instructions by orally reiterating that the examinee will be doing himself and must be good by being frank and honest in describing himself. In the present study all the subjects were literate. So they can read instructions easily.

Scale with the range of strongly agree to strongly disagree responses which are scored 5 to 1 and summed, the possible range of score was between 19 and 95. Higher score naturally indicates a higher level of job satisfaction.

Procedure

A total of 300 participants were selected for this study. They were drawn from different government general hospitals (N = 150) and psychiatric hospitals (N = 150) across Karnataka state.

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Initially the investigator established rapport with the authorities and employees and taken consent for their involvement in the proposed research. They were briefed about their participation and requested to fill up the bilingual research instruments under study. They were administered Ways of Coping and Job satisfaction questionnaires. During the process of administering the research questionnaires doubts were clarified.

After the data gathered from the participants, scoring was done according to the norms developed by the authors of the questionnaires. Later, the researcher found the relationship between occupational stress, coping strategies and job satisfaction of nurses who are working in the general and psychiatric settings.

Data Analysis:

The obtained data were scrutinized, scored according to the scoring keys respectively and subjected to the following statistical techniques to find out the relationship between the variables.

- The correlation between occupational stress, coping strategies and job satisfaction was found out by using Pearson's Product Moment Correlation.

RESULT ANALYSIS

The data gathered from the participants about their level of occupational stress, coping strategies and job satisfaction are analyzed to find out the inter relationship between these variables. The following section of this chapter reveals the relationship between the variables of the present study.

Table 1. Correlation between the variables

Variable 1	Variable 2									
	Occupational Stress	Job Satisfaction	Confrontive coping	Distancing	Self-controlling	Seeking social support	Accepting responsibility	Escape-Avoidance	Painful problem-solving	Positive reappraisal
Occupational Stress		.248	.271	.316	.418	.194	.214	.393	.312	.366
		.001**	.001**	.001**	.001**	.001**	.001**	.001**	.001**	.001**
Job Satisfaction			.330	.272	.316	.384	.223	.154	.404	.460
			.001**	.001**	.001**	.001**	.001**	.007**	.001**	.001**

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*significant @ 0.05, **significant @ 0.01 As shown in table 4.4, occupational stress has a significant positive relationship with job satisfaction ($r = 0.248$, $p = 0.001 < 0.01$) and different coping strategies, such as confrontive coping ($r = .271$, $p = .001 < .01$), Distancing coping ($r = .316$, $p = .001 < .01$), self controlling coping ($r = .418$, $p = .001 < .01$), seeking social support coping ($r = .194$, $p = .001 < .01$), accepting responsibility coping ($r = .214$, $p = .001 < .01$), escape avoidance coping ($r = .393$, $p = .001 < .01$), planful problem solving coping ($r = .312$, $p = .001 < .01$) and positive reappraisal coping ($r = .366$, $p = .001 < .01$). The present study also reveals that job satisfaction also has a significant positive relationship with different coping strategies. Such as confrontive coping ($r = .330$, $p = .001 < .01$), Distancing coping ($r = .272$, $p = .001 < .01$), self controlling coping ($r = .316$, $p = .001 < .01$), seeking social support coping ($r = .384$, $p = .001 < .01$), accepting responsibility coping ($r = .223$, $p = .001 < .01$), escape avoidance coping ($r = .154$, $p = .007 < .01$), planful problem solving coping ($r = .404$, $p = .001 < .01$) and positive reappraisal coping ($r = .460$, $p = .001 < .01$).

DISCUSSION

One of the main objectives of the study is to find out the relationship between occupational stress, job satisfaction and coping strategies. This hypothesis was formulated based on the entire population's results which have been taken for the study states that **'There will be significant relationship exists between occupational stress, job satisfaction and coping strategies'**. The findings of the study revealed that the relationship between occupational stress and job satisfaction. It has been indicated that occupational stress has a significant positive relationship with job satisfaction. It shows that when there is an increase in occupational stress it gradually reduces the job satisfaction among the nurses. Because, the situation which increases occupational stress affect negatively on performance of the workers in the workplace and finally reduces the level of performance and job satisfaction in the workers. On the other hand, when there is a decrease in occupational stress it increases the job performance and job satisfaction. Some of the factors in occupational stress which affect on job satisfaction of the nurses are Role Overload, Role Conflict, under participation, Powerlessness, Intrinsic impoverishment, Unprofitability, Role ambiguity, Unreasonable group & Political pressures, Responsibility for persons, Poor peer Relations, Low status and Strenuous working conditions.

The results also shown that occupational stress has significant positive relationship with coping strategies. The statistical analysis of Pearson Product moment method has revealed each of the coping strategies are significantly positively correlated with occupational stress. The relationship between occupational stress and Confrontive coping indicates that when there is an increase in occupational stress the nurse are not able to use Confrontive coping in the problematic situations of stressful conditions. They may not be able to take proper actions and confront with the problems. On the other hand, when there is decrease in occupational stress they may take proper actions to confront with the problem.

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Another coping strategy distancing which is a passive coping strategy also has a significant positive relationship with the occupational stress. It indicates that when the nurses face stressful situations they may always think that the problem solves itself without their effort and they detach from the situation in the presence of high level occupational stress. When the level occupational stress is decreased they may not use distancing coping instead they use other coping strategies which would be helpful for them to solve problems or reducing stress.

The passive coping strategy self-controlling also has a significant positive relationship with occupational stress. It has been said that when the nurses face stressful situations they may always make good and important efforts to regulate their feelings and actions to face the situation or solve the problem when the level of occupational stress is low. When the level occupational stress is increased they may not use self-supporting coping instead they use other coping strategies.

Seeking social support is another coping strategy which is active coping method also has a significant positive relationship with the occupational stress. It indicates that then the level of occupational stress is low, the nurses use this coping strategy in resolving the problems which have been raised in the working situations. They seek informational and social support from the other employees in resolving their problems. If the level of occupational stress is high in nurses they may not seek informational or emotional support from fellow employees in resolving their problems.

The coping strategy of accepting responsibility also has significant positive relationship with occupational stress. It can be noted that an increase in occupational stress avoid the use of coping strategy of accepting responsibility in nurses. They may not accepting their role in the problem which have been raised in the working conditions. When there is low in occupational stress they accept their role raising the problems and try to solve by using the available resources.

Another coping strategy escape avoidance coping has a significant positive relationship with the occupational stress. It indicates that when the nurses experience high level of occupational stress, most of the times they use escape avoidance coping in stressful situations or problematic conditions. It indicates that they try to avoid the situations where the problems arises. They don't even think of the consequences of the situations they face or confront. When there is low level of occupational stress the nurses use adaptive coping strategies to resolve their problems instead of escaping from the situations.

Painful problem solving is another active coping strategy. It indicates that in the stressful situations or problematic conditions people try to use the available resources and execute appropriate solution methods for resolving the issues. This coping strategy also has positive

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relationship with the occupational stress. It has been said that when there is low level of occupational stress nurses use the available resources and try to solve their own problems by executing the appropriate strategies. But when there is high level of occupational stress they use escape avoidance coping most of the times.

The last coping strategy positive reappraisal also has a significant positive relationship with the occupational stress. In the presence of high level of occupational stress nurses fail to use positive reappraisal coping in the strenuous working conditions. Positive reappraisal basically tells that people try to create positive meaning and focus on their personal growth. When they confront with any problems they try to find a meaning in resolving the problem by using the available resources and they focus on their personal career growth. If they have low level of occupational stress they can find a meaning in resolving the problems and they can focus on their personal career growth or development.

Another important variable which has been taken for this present study is job satisfaction, which also has a significant positive relationship with the coping strategies.

The results also shown that job satisfaction has significant positive relationship with coping strategies. The statistical analysis of Pearson Product moment method has revealed each of the coping strategies are significantly positively correlated with job satisfaction. The relationship between job satisfaction and Confrontive coping indicates that when there is low level of job satisfaction the nurse are not able to use Confrontive coping in the problematic situations of stressful conditions. They may not be able to take proper actions and confront with the problems. On the other hand, when there is high level of job satisfaction they may take proper actions to confront with the problem and their performance in the work also can be increased.

Another coping strategy distancing which is a passive coping strategy also has a significant positive relationship with the job satisfaction. It indicates that when the nurses experience satisfaction about their work they may always think that the problem solves itself without their effort and they detach from the situation in the presence of low level job satisfaction. When the level job satisfaction in high they may not use distancing coping instead they use other coping strategies and their performance in the work also can be increased.

The passive coping strategy self-controlling also has a significant positive relationship with job satisfaction. It has been said that when the nurses feel satisfaction about their jobs they may always make good and important efforts to regulate their feelings and actions to face the situation or solve the problem and increasing in their job performance can also be found. When the level of job dissatisfaction is low they may not use self-supporting coping, instead they use other coping strategies.

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Seeking social support is another coping strategy which is active coping method also has a significant positive relationship with the job dissatisfaction. It indicates that then the level of job dissatisfaction is high, the nurses use this coping strategy in resolving the problems which have been raised in the working situations and their performance in the work also can be increased. They seek informational and social support from the other employees in resolving their problems. If the level of job dissatisfaction is low in nurses they may not seek informational or emotional support from fellow employees in resolving their problems and it also affects negatively in their job performance.

The coping strategy of accepting responsibility also has significant positive relationship with job dissatisfaction. It can be noted that a decrease in level of job dissatisfaction avoid the use of coping strategy of accepting responsibility in nurses. They may not accepting their role in the problem which have been raised in the working conditions. When there is high level of job dissatisfaction they accept their role raising the problems and try to solve by using the available resources and their performance in the work also can be increased.

Another coping strategy escape avoidance coping has a significant positive relationship with the job dissatisfaction. It indicates that when the nurses experience low level of job dissatisfaction, most of the times they use escape avoidance coping in stressful situations or problematic conditions. It indicates that they try to avoid the situations where the problems arise. They don't even think of the consequences of the situations they face or confront and it also affects negatively on their performance. When there is high level of job dissatisfaction the nurses use adaptive coping strategies to resolve their problems instead of escaping from the situations and their performance in the work also can be increased.

Painful problem solving is another active coping strategy. It indicates that in the stressful situations or problematic conditions people try to use the available resources and execute appropriate solution methods for resolving the issues. This coping strategy also has positive relationship with the occupational stress. It has been said that when there is high level of job satisfaction, nurses use the available resources and try to solve their own problems by executing the appropriate strategies and they may show better performance in their work. But when there is low level of job satisfaction they use escape avoidance coping most of the times and their performance in the work also can be decreased.

The last coping strategy positive reappraisal also has a significant positive relationship with the job satisfaction. In the presence of high level of job satisfaction nurses fail to use positive reappraisal coping in the strenuous working conditions. Positive reappraisal basically tells that people try to create positive meaning and focus on their personal growth. When they confront with any problems they try to find a meaning in resolving the problem by using the available

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resources and they focus on their personal career growth. If they have low level of job satisfaction they may not be able to find a meaning in resolving the problems and they can focus on their personal career growth or development and their performance would be gone down.

CONCLUSION

Nursing profession is the most challenging job in the present context. In this context lot of factors will affect the nature of work of the nurses. In which occupational stress is the most important one which will affect negatively on nurses working performance. The present study was tried to explore the relationship between occupational stress, coping strategies and job satisfaction among general hospital nurses and Psychiatric hospital nurses. It has been said that the occupational stress they experience in the organizational settings, coping strategies they use in the reduction of occupational stress or problems and the level of job satisfaction they experience in the work they do influence each other and significant positive relationship has shown.

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Conflict of Interests

The author declared no conflict of interests.

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Impacts of Burden on Use of Coping Styles among Stroke Caregivers

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ABSTRACT

Introduction: Stroke is a family disease and prevalent cause of disability cause in developing country including India. After discharge from the hospital, the caregivers will take over the responsibility to look after their patient. Debilitating and chronic nature of stroke often put strain and stress on the caregivers, which threaten the rehabilitation of the stroke patients. The study aimed to find out the impact of burden on coping styles and caregivers' characteristics on burden in caregivers of stroke survivors. **Methods:** A cross-sectional descriptive survey was carried out by recruiting 100 caregivers purposively in selected rural-community setting Punjab, India. Coping Checklist (CCL) and Zarit Burden Interview (ZBI) schedule was used to determine coping styles and burden in caregivers. Relevant inferential statistics was applied to compute results. **Results:** Findings show that burden and negative coping strategies are dependent on each others. However, positive coping strategies also show a significant positive relationship with burden in relationship aspects. Family history of stroke, education status of caregiver, availability of support in care and duration of care had direct impact on perceived burden in caregivers of stroke patients. **Conclusion:** Use of coping strategies depends on severity and nature of burden in caregivers of stroke survivors. In fact, adoption of coping strategies depends on severity of burden. Study recommend to plan and implement hospital based training program for the caregivers to teach different aspects of home based care in order to decrease caregiving burden and maintain long term quality of life among caregivers.

Keywords: Caregiver, Burden, Coping, Stroke

Sudden attack, long-term nature and disability in stroke survivors have long lasting impacts on entire family system. Change in health care paradigm from curative to preventive shift the responsibility of caring of a stroke patient from health professionals to the immediate family

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members and friends who are completely untrained and new to this unavoidable job (Simon C et al, 2009). Family caregivers play an enormous role in taking care of their loved one at home. The sudden and unpredictable onset of stroke gives no time to think, prepare and adjust to the caregivers to their new roles and responsibility to take care their patient. Indeed, short of information, lack of training and guidance to caregivers to look after their patient predispose the caregiver task more complicated and left the caregivers to their own (Das SK et al, 2007).

Caregiving is an unwelcome job that can encompass 365 days in a year, 24 hours in a day; 7 days in a week, with no holiday, vacation, sick leave, rewards and praise (Greven C, 2007), which put caregivers at more risk of exposure to strain and burden. This burden could be in the form of physical and psychological problems, financial crisis, disturbed relationship and many other forms (Sorensen D et al, 2006). Likewise, hospitalization also exert burden on caregivers in the form of unwanted go away from job, financial crisis, disorganization of family system, and feeling bound to perform certain task. Research on burden in caregivers becomes area of interest in health care system since few years (Cardo-Artal et al, 1999).

Furthermore, long-term involvement in care can result in sleep problem, change in eating pattern, indigestion, and impair immune system in the caregivers (Barlow DH et al, 1999). Therefore, it is evident that caring task is stressful and burdensome and may result many health problems, such as heart disease, hypertension, peptic ulcer, mood changes, weight loss, problem in concentration at work place and suicidal ideas time to time (White CL et al, 2004). Likewise, it is been reported that caregivers of patients with neurological problems face more burden as compared to other physical diseases (Thommessen Bet al, 2002).

A person is natural reaction to what he or she is exposing is known as ‘coping styles’ (Skinner EA et al, 2000). Coping styles are the ways used by individual to tolerate or bear the disturbances in physical, psychological, emotional and financial areas. Individual caregiver cope to this new situation in their own way and try to use their own either used or invent new coping styles. It has seen that at early stage of caregiving, caregivers deal positively and try to improve upon the situation by optimistic thoughts that stroke patient will improve, and still have realistic expectations on the patients’ level of recovery (Visser –Meily JMA et al, 2004). Although, it is obvious for caregivers fell helpless and uncertain initially for new caregiving task.

Coping helps to maintain and regulate emotions, and strain by findings new alternative or by bringing change in the existing ways of problem solving. Coping used to change and depend on the situation time to time. Further, it was also evidenced that emotion coping styles are more used in case of long term stagnant situation such as no improvement in patient condition or deteriorating the symptoms etc. (Folkman & Lazarus, 1980). However, the central functions of coping is to prepare an individual to cope with stressful situation. Excessive use of emotion coping strategies indicate poor adaptation to the stress or confront the situation, however, a blend

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of coping strategies may come across simultaneously to work together and handle the stressful situation more efficiently (Carver CS et al, 1994). Similarly, family members taking care of the patients with neurological problems used different coping styles than dealing with a patient with physical disability (May LR, et al, 2005).

Therefore, thus we aimed present study to find an impact of burden on coping styles and impact of different caregivers' characteristics on burden among caregivers of stroke survivors.

MATERIAL & METHODS

100 caregivers of stroke patients were selected purposively from conveniently selected rural community settings, Punjab India. Caregivers who found healthy and more than 18 years of age and involve in direct care for more than one month after discharge of the patient from the hospital, were included in the study. However, pregnant and caregivers with history of severe medical and psychiatric disease were excluded from the study. A self-structured information data sheet was used to collect personal and caregiving characteristics of the caregivers.

Zarit Burden Interview Schedule (ZBIS): It is 22 items 5 point Likert rating scale. These 22 items further categorized in seven sub-areas namely; 'burden in relationship' (6 items), 'emotional well-being' (7 items), 'social and family life' (4 items), 'finances' (1 item), 'loss of control over one's life' (4 items), 'personal strain' (12 items) and 'role strain' (6 items). Scale was on continuous scale and high score indicate high burden. The tool was translated in to Punjabi language with the help of experts in Punjabi literature and language. The calculated Cronbach alpha value of translated Punjabi version was 0.92 for this study.

The Coping Checklist (CCL): It is a comprehensive list of 70 items which are further divided in 3 broad types of coping styles with their sub areas; problem focused (problem solving, 10 items), emotion focused (distraction positive 14 items, distraction negative 9 items, acceptance 11 items, religion/faith 9 items, denial/blame 11 items, and problem and emotion focused (social support, 6 items). Subjects had to answer items in the form of yes or no. obtaining higher score in a particular area indicates greater use of that individual coping styles. The checklist was translated to Punjabi language in the interest of the rural population with the help of experts in Punjabi language. The validation also sought with the help of experts in the field of nursing and psychiatry. The validity was confirmed from experts in the field of psychiatry, and psychology. The reliability was calculated by application of test-retest method and it came out 0.71 for this study. A prior permission was obtained to use the tool.

Ethical consideration

A brief research proposal was put before the Ethical Committee for ethical approval. The study was approved with wide letter no. 140/Surg/13 after discussing varied ethical principles, including privacy and confidentiality. Investigators also kept in mind other ethical issues during

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and after data collection. After explaining the study objectives, a written informed consent was also taken from the caregivers. Subjects were given full freedom to withdraw from study at any point of time. However, the reason for non-participation was ascertained.

Data Collection

A written permission was obtained from concerned authority of hospital to collect the records of the patients to trace their home setting. Caregivers were telephonically contacted after taking their home address for their availability and went on their address to conduct interview. While interview, it was assured that caregivers were free from all types of distractions to furnish the necessary unbiased details. Caregivers were visited at their home during their free time and it took around 20-25 minutes to furnish the asked details.

RESULTS

A small part of study is already published for socio-demographic and caregiving characteristics of the caregivers (Kumar R et al, 2015). Table 1 represents the direct relationship of burden on adopted coping strategies by the caregivers of stroke survivors. Findings show that there is no direct relationship between burden and adopted coping strategies in caregivers. However, burden in the form of disturbed relationship subscales shows a statistical positive relationship with use of problem and emotion focused coping strategies. It can be interpreted that caregivers who had more disturbances in relationship maintenance use more emotional and problem focused coping strategies as compared to less disturbance in relationship maintenance.

Table 1. Relationship between Burden and Coping Strategies (n=100)

ZBI sub scales	Coping	Problem focused	Emotion focused	Problem & Emotion focused
Burden	.150	.109	.130	.109
Burden in relationship	.267**	.166	.219**	.285**
Emotional wellbeing	.104	.062	.098	.060
Social & family life	.064	.086	.056	.001
Finance	.104	.109	.087	.053
Loss of control	-.012	-.003	-.009	.019
Personal strain	.173	.081	.155	.159
Role strain	.180	.163	.157	.087

Note= *p<.05; **p value<.001

Data in table 2 represent relationships between various sub-scales of ZBI and CCL. Results show that denial coping strategy had significant relationship burden in all sub scale of ZBI scale. However, social support and acceptance also had significant positive relationship with burden in relationship aspects of ZBI. It can be interpreted that increases in burden simultaneously enable the caregivers to use more denial coping strategy and use of more social support and more acceptable attitude towards problem.

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Table 2. Relationship between Sub Scales of ZBI and CCL (n=100)

ZBI sub scales	1	2	3	4	5	6	7
Burden	.109	-.057	-.020	.011	-.057	.504**	.109
Burden in relationship	.109	.166	.026	.224*	-.091	.351**	.285**
Emotional wellbeing	.062	-.028	-.085	-.064	.040	.395**	.060
Social & family life	.086	-.027	-.070	-.193	.008	.434**	-.001
Finance	.109	.002	-.036	-.094	.023	.335**	.053
Loss of control	-.003	-.164	-.105	-.039	-.089	.410**	-.019
Personal strain	.081	-.036	.002	.127	-.080	.436**	.159
Role strain	.163	.048	.021	-.154	.055	.453**	.087

Note= *p<.05; **p value<.001; ZBI=Zarit Burden Interview; CCL=Coping Checklist;1= Problem solving;

2= Distraction positive;3= Distraction negative;4= Acceptance;5= Religion;6= Denial;7= Social support

Table 3 represents the impact of caregivers' characteristics on burden level. Findings revealed that past family history of stroke, secondary education status of caregiver, availability of family and relatives support in care and providing care for short interval in a day had direct impact on perceived burden in caregivers of stroke patients. It can be interpreted that caregiver with history of stroke experience more burden as compared to those who did not have family history of stroke. Similarly, caregivers who were educated up to secondary education and informal education found more burdened as compared to primary and higher secondary school educated caregivers. However, caregivers who were providing care for short duration was found more burdensome as compared to caregivers who providing care for long time in a day. Caregivers who were had total support in care were less burdensome as compared to caregivers who did not had support in care.

Table 3. Association of Caregivers' Characteristics with Burden (N=100)

Caregivers' variables	Mean±SD	t /F-value	p-value
History of stroke in family			
Yes	38.00±15.12	2.724 ^a	0.008*
No	27.52±09.18		
Education status			
Informal education	30.14±06.14	2.633 ^b	0.039*
Primary	26.84±08.43		
Secondary	35.00±12.55		
Higher secondary	25.11±09.73		
Graduate & above	27.65±14.04		
Caregiving total time (hrs/day)			
<10	34.17±12.54	2.599 ^a	0.011*
>10	27.09±09.98		
Availability of support			
Total**	26.77±09.06	10.216 ^b	0.000*
Partial	36.40±11.54		
None	47.00±20.85		

*=significant @p<0.05; a=independent sample –test; b=one way ANOVA;

Total**-psychological, financial, social & emotional support

DISCUSSION

Stroke is major public health problem and affects both patient and family member who involves in care and support. Long term and sudden unexpected nature of stroke forces family member suddenly in to caregiving process and experience an irresistible sense of strain and burden. Caregivers feel strained while providing care due to uncertainties in care, progress, and outcome in their loved one. Subsequently, disturbed psychological health compel caregivers to use wide variety of coping styles in order to maintain good health to provide round the clock care to their loved one.

Present study findings reported that overall coping and burden are independent to each other and burden do not have direct influence on adoption of coping styles in caregivers of stroke survivors. Still, certain areas of burden had direct influence on selection and use of negative coping styles in caregivers, which is consistent with the findings by Boerboom W et al (2014) that palliative and passive coping styles are more related to higher burden, depression and higher dissatisfaction. Further, findings also found consistent with the findings of the study conducted by Visser-Meily A (2009) which reported that use of passive coping styles is more related to negative outcomes, whereas an active coping styles related to positive outcomes.

Similarly, it is been further reported in a study conducted by Ma HP et al (2014) on caregivers of spinal cord injury patients that negative coping styles are more directly related to higher burden in caregivers and vice-versa. Likewise, negative coping styles had positive relationship with role burden in caregivers. These findings are in accordance with the findings of a study conducted by Kumar R et al (2012), which reported that use of denial is increased as the level of different types of burden increased in caregivers. A close consistent and similar finding reported in a study conducted by Ma HP et al (2014) which reported that increase burden enables caregiver to use more negative coping styles. It can be understood that increase level of burden decrease the reality acceptance in caregivers due to impact on quality of life, especially psychological and cognitive one. Study also emphasized that burden in the form of disturbed relationship compel caregivers to opt out more emotional and problem solving coping strategies as well.

Further, findings represent that certain caregivers' characteristics had direct impact on the burden level. Similar and consistent result found in previous research which reported that duration of illness of patient, caregiving total time, occupation status, relationship with patient (Da Costa TF et al 2015; Chakrabarti S et al, 1995) are significantly associated with the amount of burden perceived by caregivers. Similarly, it is also reported in many studies (Chow KS et al 2009; Dalvandi A et al 2010) conducted on caregivers of stroke survivors that amount of social support and total time of caregiving (Watanabe A et al 2015; Vincent C 2009) found a statistically significant relationship with extent of burden. Similarly, congruent findings reported that total caregiving time, and use of necessary support services had significant relationship with extent of burden (Watanabe A et al 2015; Begum S 2014).

CONCLUSION

Stroke can have disabling effects not only on stroke survivors but also on family members and country as whole. Coping is an important personality traits enable a human to outweigh the health hazards in order to maintain good health and prosperity. Caregivers go for negative coping styles as the burden level increased in order to maintain harmony in different sphere of the life and better quality of life. However, a tolerable level of burden enables the caregivers to adopt positive and healthy coping styles and vice-versa.

RECOMMENDATIONS

It is noted that developing country like India have inadequate provision and uses of support services for caregivers are contributory factors to increased caregiver burden. This level of burden is further multiplied by the sudden nature of stroke and lack of preparedness of the caregiver to look after their loved one. Therefore, it is very important for the health professionals to take an initiative to train caregiver before discharge and ensure preparedness for a successful home rehabilitation. Adequate training and instruction to caregivers will have a great influence on stroke patient's rehabilitation outcomes.

LIMITATIONS

The present study was a modest attempt to determine the relationships between coping styles and burden and study the impact of caregiving characteristics on burden in caregivers. Still, the study should be seen under certain limitations like small sample size, one time cross sectional survey and use of purposive sampling may infuse bias in the findings, which could impede generalization of the findings on larger population. However, the study findings should be considered preliminary in this area.

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Effectiveness of Cooperative Learning (Theme: Limited Natural Resources) to Increase Intention to Save Energy in Students

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ABSTRACT

Some of the natural disaster occurred caused by people using natural resources unwisely. Before analyzing about that behavior, first will be analyzed is behavioral intention. The purpose of this study was to determine the effectiveness of cooperative learning group investigation type with the theme of "limited natural resources" to improve intention to save energy. The study used an experimental design Post-test-Only Design With Equivalent Groups, involving 66 people, divided into two groups, each 33 in the experimental group and 33 control group. Process experiments were conducted in a way, dividing the experimental group in 5 small groups, having given the matter of limited natural resources, then each group discussion, and sharing ideas with other groups in the jigsaw. The results showed that there are differences in energy-saving behavior intention significantly between the experimental group (KE) and the control group (KK) with t value of 3.192 with 0.002 significance ($p < 0.05$). Differences KE and KK with a positive t value indicates that the energy-saving behavior intention at KE has a higher value than the families who were not given the manipulation. In general score KE and KK if joined at the high category, but if sorted, KE scores at the high category and score KK in middle category.

Keywords: *Intention To Save Energy, Group Investigation*

Using natural resources unwisely, over time will result in a natural imbalance, so the variety of disasters caused by natural events continue to occur. Increasing global warming, prolonged drought, landslides, forest fires and prolonged drought. Such incidents happen because of human behavior that is not wise in the use of natural resources that are not easily updated. Gifford (2009) in a critical analysis contained in environmental psychology journal stated that, events natural damage occurs is generally more easily analyzed scientifically, whether related to natural or usage that involves a high level of technology. Apart from these two things, the issue of

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human behavior as it's was no less serious for scrutiny. Gifford explained that the environmental damage occurred because the man "not involved" with nature. Humans do not understand well about the "work" of nature to provide a variety of resources and energy to meet human needs. Therefore, human beings need "dipahamkan" or given adequate knowledge about the natural resources are limited, so it may be wise to take advantage of natural resources. Jaolis (2011) showed that extensive environmental knowledge affects the emergence of pro-environmental attitudes. A similar study conducted by Suki (2013) and the results show that the extensive environmental knowledge affect the emergence of pro-environmental behavior. Besides knowledge, other factors lead to the behavior of individuals is pro-environment is subjective norm. Subjective norm will motivate individuals to reinforce behavior that will be raised. Subjective norm are the external factors outside the individual form of solicitation or motivation of the people you trust. Marhaini (2008) showed that the attitude of the individual and subjective norm, partially or jointly influence the emergence and behavioral intention to consume the product.

Based on the above analysis, their knowledge (internal factors) and subjective norm (external factors) will strengthen individual intentions in the act, in this case the behavior of individuals to conduct a saving energy in everyday life. Various social interventions to improve human behavior related to nature has been done, including in Indonesia. Research conducted by Firmiana, Imawati, and Prasetya (2012) about the behavior of pro-conservation, shows that social interventions to change behavior to be more pro-conservation or environmental awareness begins with the provision of adequate knowledge about what is junk and what they need time to be described. This was followed by a series of conduct drawn up and scheduled to do. The result is a pro conservation behavior of the young generation in this case is the subject of research is the students showed an increase to be more environmentally conscious. The form of intervention offered in this study to improve the knowledge and intention of the individual to behave in energy saving is through learning cooperative learning type group investigation. Why is cooperative learning model with the type group investigation? Because of this learning model train individuals (students or students) to be more creative and have good communication skills. Given the learning strategies that offer allow individuals to be actively involved since the beginning, sharing duties with other group members to locate the material, then share it with other groups through presentations. The existence of cooperation among the members when searching for material from different sources but refers to a specific case will increase learning motivation of the individual. More specifically Lie (2007) showed that there are at least six stages in the process of cooperative learning group onvestigation of identifying topics and divide people in small groups, plan tasks and division, conducting investigations, preparing reports, presenting, and evaluating. Researchers concluded that the model of cooperative learning type group investigation with the theme of "limited natural resources" will encourage people to get

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acquainted with the causal and the extent of human losses gained if the damage can be controlled should this occur.

The understanding of the intention is subjective chances of the individual about the possibility of doing a particular behavior (Fishbein & Ajzen, 1975). Generally Ajzen (2005) suggested that the intention (in this case is the intention of saving behavior of energy) consists of three aspects, namely: Attitude (attitude toward the behavior) is the individual evaluation positively or negatively to things, people, institutions, events, behavior or certain interests, subjective norm is the individual's perception of social pressure to show or not show a behavior, and perceived control behavior or beliefs about the presence or absence of the factors that facilitate and hinder the individual to perform a behavior.

Referred to cooperative learning is a learning model in which people learn and work in small groups collaboratively, with the number of 5 people and are structurally heterogeneous (Slavin, 2009). Types of cooperative learning is used mainly as a manipulation in this study there Group investigation (investigation group), a model of cooperative learning that puts students into groups heterogeneously based on different socio-economic, gender, ethnicity, and religion to conduct an investigation of a topic (Eggen and Kauchak, 2012). While Slavin (2009: 11) states that the group investigation is the process of planning and organizing classes where individuals working in small groups, with emphasis on cooperative inquiry, discussion groups, and cooperative planning and projects.

METHOD

The dependent variable were used in this study is the intention of energy-saving behavior. Operationally energy-saving behavior intention is the intention of the individual to behave efficiently use natural energy associated with his attitude toward the condition of limited natural resources and social norms are internalized and then believed. Intention will be measured using aspects intentions include: individual attitudes towards the condition of natural resources that not all infinite, subjective norms obtained from the environment if the environment emphasizes the individual to constantly bermat in energy use, and perceived control behavior or the ability of individuals consciously to control his behavior when using natural energy.

Subject of the study involved a number of 66 people, divided into an experimental group a total of 33 people and the control group a total of 33 people. The subject is the fifth semester student majoring in Psychology. This type of research used in this research is quantitative experimental design Posttest-Only Design With Equivalent Groups (Shadish, Cook, Campbell, 2012: 116). From the design it appears that the research will be conducted with the involvement of two groups: the experimental group and the control group, without giving a pretest. The treatment will be given to the experimental group, in the form of group learning investigation in which the

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implementation of learning combined with a jigsaw. Learning material in the form of limited natural resources. After the completion of the treatment, the experimental group were asked to fill out a check sheet by manipulation and posttest questionnaire as his. As for the control group was not given any treatment and langsug asked to fill in questionnaires. Furthermore, the data from the two groups will be compared to determine whether there is a difference intentions.

Data will be analyzed using different test to see whether there are differences in the energy-saving behavior intention between experiment group and control group.

RESULT

The result that energy-saving behavior intention scale consisting of 33 items of items, there are 22 valid items grains and 11 grains of invalid item. Items that otherwise valid coefficients ranged from 0.264 up to 0.694. The reliability coefficient of 0.872, thus reliable measuring instrument is expressed in the high category. Descriptive highest score of energy-saving behavior intention on the subject as a whole is 85 and the lowest score is 59 with an average of 70.4091. The highest score in the experimental group is 85, while the lowest score was 63 with an average score is 72.6667. The highest score in the control group is 84, while the lowest score was 59 with an average total score of 68.1515. Furthermore, a general overview of the categorization of energy-saving behavior intention can be seen in the following table:

Table.1, Descriptive Intention to Save Energy

No	Group	Interval	Criterion	Frequency	%
1	Experiment Group & Control Group	$X < 66$	Low	0	0%
		$66 \leq X < 99$	Moderate	29	44%
		$99 \leq X$	High	37	56%
2	Experiment Group	$X < 66$	Low	0	0%
		$66 \leq X < 99$	Moderate	8	24%
		$99 \leq X$	High	25	76%
3	Control Group	$X < 66$	Low	0	0%
		$66 \leq X < 99$	Moderate	21	64%
		$99 \leq X$	High	12	36%

Based on the table, it can be concluded that the energy-saving behavior intention on the subject KE (condition after treatment) are mostly located in the high category, while the energy-saving behavior intention on the subject of most of the families are in the medium category. The categorization of energy-saving behavior intention per briefly aspect can be seen in the following table:

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Table. 2, Resume of Intention to Save Energy Each Aspect

No	Group	Kategori	Aspek		
			<i>Attitude Toward Behavior</i>	<i>Subjective Norms</i>	<i>Perceived Control Behavior</i>
1	KE & KK	Tinggi	0%	0%	0%
		Sedang	17%	23%	36%
		Rendah	43%	37%	24%
2	KE	Tinggi	0%	0%	0%
		Sedang	6%	9%	24%
		Rendah	94%	91%	76%
3	KK	Tinggi	0%	0%	0%
		Sedang	27%	36%	48%
		Rendah	73%	64%	52%

Furthermore, the results UJIA assumptions indicate that overall (KE & KK) value KS-Z = 0.831 and $p = 0.494$, while the KE value KS-Z = 0.629 and $p = 0.824$, while the KK value KS-Z = 0.832, $p = 0.492$, Earned value of p all subject groups above 0.05 indicates that all the data are normal. Next homogeneity test results show the value of $F = 1.064$, $p = 0.307$, for $p > 0.05$ means that the data obtained are homogeneous. Next, the results of a test of hypothesis to test whether there is any difference between the groups experiment after being treated with a control group of untreated, can be seen in the table below:

Table. 3, t-test Between Experiment Group & Control Group

	Skor	
	Equal variances assumed	Equal variances not assumed
Levene's Test for F Equality of Variances Sig.	1.062 .307	
t-test for Equality of t Means df	3.192 64	3.192 59.873
Sig. (2-tailed)	.002	.002
Mean Difference	4.51515	4.51515
Std. Error Difference	1.41474	1.41474
95% Confidence Interval Lower of the Difference Upper	1.68888 7.34142	1.68512 7.34518

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Based on the above table, seen the value of t obtained was 3.192 with a significance of 0.002 ($p < 0.05$) this means that there are significant differences between the KE and KK. Differences KE and KK with a positive t value indicates that the energy-saving behavior intention at KE has a higher value than the families who were not given the manipulation. This is reinforced by the empirical mean difference of the two groups of subjects, where KE has empirical mean more than KK. The following table yangmenjelaskan comparison of mean both groups:

Table. 4, Empirical Mean Between Experiment Group & Control Group

	Kelompok	N	Mean	Std. Deviation	Std. Error Mean
Skor	KE	33	72.6667	4.93499	.85907
	KK	33	68.1515	6.45717	1.12405

Based on the hypothesis test there was a significant difference in energy-saving behavior intention variable between the experimental group and the control group. Where the experimental group showed energy-saving behavior intention score higher than the control group. This shows that the treatment was designed with the aim to influence the understanding of the subject of the experimental group can be declared a success. Form of treatment for the provision of knowledge about the importance of conserving natural resources are limited. Followed by a discussion and a presentation on the issue of human behavior are not saving natural resources and solutions, is thought to enhance the subject's intention to behave more energy efficient. This is in accordance with the opinion of Engel, et al (1995) which states that increased knowledge as information stored in memory that includes rules that knowledgeable about the availability and characteristics of an object is the social factors (external) that can improve the intentions of individuals to behave in a certain.

Furthermore, the analysis per aspect shows the following conditions, the results of analysis aspects of behavior or attitude toward the behavior in general (control and experimental groups) are in the high category, as well as the experimental group and the control group. This shows that the attitude of the subject towards energy-saving behavior is positive, meaning that the subject of interest for energy-saving behavior. Next to aspects Subjective norms, both the control group, the experimental, and the whole is in the high category. Similarly, the aspect of perceived control behavior, both the control group, the experimental, and the whole is in the high category. Nevertheless, if we look closely, the aspect of perceived control behavior in the experimental group was higher than the control group.

Furthermore, the results of different test analysis showed that there are differences in behavior intention significant energy saving between KE and KK. This means that the manipulation of the form of materials, followed by group investigation process that "forces" to actively seek out

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subject matter waste of natural resources are limited, then thought of a possible solution, considered quite effective. This is according to the results of critical analysis Gifford (2009), which states that damage to natural events occur in general can not be separated from the problem of human behavior as users. Gifford explained that the environmental damage occurred because the man "not involved" with nature. Humans do not understand well about the "work" of nature to provide a variety of resources and energy to meet human needs. Therefore, human beings need "dipahamkan" or given adequate knowledge about the natural resources are limited, so it may be wise to take advantage of natural resources. Thus it can be predicted that the increase in energy-saving behavior intention on the subject that are participants KE caused by manipulation by the experimenter.

CONCLUSION

There are three conclusions can be obtained from this study, namely: a) description of behavior intention energy efficient in KE at the high category, b) description of behavior intention energy saving in households that are in the medium category, and c) there are differences in behavior intention saving energy significantly between KE and KK, where KE showed higher scores than KK. Advice can be given on the results of this study to further research is needed to make the treatment more complex variation, so that individuals are encouraged to behave more energy efficient. Besides, before making treatment of the "energy-saving" it is important to first analyze the factors that make individuals want to behave energy-efficient, so that manipulations are made according to individual conditions. Further advice for institutions, see the results of research in which the energy-saving behavior intention score high enough then the institutions necessary to facilitate through the courses and facilities on an ongoing basis so that the intention of this high can actually materialized in the form of concrete behavior.

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Conflict of Interests

The author declared no conflict of interests.

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A Narrative Review of the Relationship between Victimization, Depression and Suicide Ideation among Lesbian, Gay and Bisexual Individuals

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ABSTRACT

Objective: To study the relationship between victimization, depression, and suicide ideation among lesbian, gay, and bisexual (LGB) individuals. **Methods:** From a narrative overview of the literature, synthesizing the findings of the relationship between victimization, depression, and suicide ideation among LGB individuals, from a search of relevant database, 3,685 journal articles were retrieved – of which 16 met the study's inclusion criteria. **Results and Discussion:** Victimization represents a highly stressful experience for the individual involved. Individuals perceived as sexual minorities (i.e., gay, lesbian, bisexual, or transgendered) are specific targets of victimization. Compared to their heterosexual counterparts, sexual minority individuals are more likely to report sexual minority-specific victimization. Sexual minorities are more vulnerable to poor mental health outcomes (e.g., the symptoms of depression) than sexual majorities. This is related to LGBT victimization. Sexual minorities are more likely to report having suicide ideation and attempt than heterosexual individuals. This is associated with LGBT victimization. There is a significant relationship between symptoms of depression and the lifetime history of suicide ideation and attempt among LGBT individuals.

Keywords: *Sexual Minority; Victimization; Depression; Suicide; Self-Harm; Risk Behavior*

There is a popular consensus among researchers that victimization represents a highly stressful experience for its victim (O'Brennan et al., 2009; Rigby, 2003). In examining the specific targets of victimization, several studies have suggested that individuals perceived as sexual minorities (i.e., gay, lesbian, bisexual, and transgendered) are particularly vulnerable. This is especially true among sexual minority youths (Berlan et al., 2010; Williams et al., 2003). For instance,

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D'Augelli et al. (2002), in investigating the incidence and mental health impact of sexual orientation victimization of lesbian, gay, and bisexual youths in high school, indicated that LGB youths report more frequent experiences of victimization, e.g., verbal, physical, and homophobic bullying, than their heterosexual peers. According to Harris Interactive, Gay, Lesbian & Straight Education Network (2005), a survey of school safety among a national sample of students found that LGB students were three times more likely to feel unsafe at school than their heterosexual peers, and 90% of LGB students reported having been verbally or physically harassed.

Victimization has been linked to compromised emotional health and suicidal ideation (Eisenberg & Aalsma, 2005). The combination of LGB identity and victimization predicts high levels of mental health problems and risk behaviors (Meyer, 1995). The *Minority Stress Model* is the most widely adopted theoretical framework in explaining this phenomenon, in which it posits that hegemonic structures upholding heterosexism and homophobia create stressors (e.g., discrimination, stigma, victimization), which may result in mental health issues and risk behaviors among those with minority status (Meyer, 1995). For example, Wilkinson and Person (2009) indicated that youths who attend schools with cultures that are likely to stigmatize LGB youths are more susceptible to mental health problems. Shields et al. (2012), in investigating the impact of victimization on risk of suicide among LGB high school students in San Francisco, stated that LGB individuals who are being victimized have higher odds of attempting suicide or planning to complete suicide. Espelage et al. (2008), in examining homophobic teasing, psychological outcomes, and sexual orientation among high school students, argued that LGB individuals who experience homophobic teasing – including those who question their sexual orientation – are more likely to have depression and suicidal feelings than heterosexual individuals.

It has been suggested that, independent of other suicide risk factors, victimization is a significant risk factor for suicide ideation among LGB individuals (Brunstein et al., 2010; Bontempo et al., 2002). Meanwhile, Silenzio et al. (2007) proposed that suicide ideation among sexual minorities is associated with depression. The purpose of this narrative review is to examine current existing literature and studies in discussing the relationship between victimization, depression, and suicide ideation among lesbian, gay, and bisexual (LGB) individuals.

METHODS

A comprehensive search of three selected computer databases – EBSCOHOST, Springer, and ScienceDirect – using the search criteria {LGBT OR "sexual minority" OR homosexual* OR gay OR lesbian OR bisexual AND bully* OR victim* AND depress* OR "mental health" AND suicide* OR "self-harm" OR "risk behavior"} for the period 2000 to 2015, was conducted. Journal articles were included for the current narrative review, if they met the following criteria: (1) available in full text, (2) the association of sexual minorities or LGB individuals with any of

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these factors: victimization, bullying, mental health problems, depression, suicide ideation, and/or risk behaviors, and (3) a sample consisted of adolescents, youths, young adults, and/or adults. For EBSCOHOST, of the 79 studies identified, only 12 met the inclusion criteria. For Springer, the search yielded 2,793 results of which only two were selected. For ScienceDirect, the search yielded 813 results of which only two were selected. Overall, 16 journal articles that met the inclusion criteria were chosen for the current narrative review.

RESULTS

Reference	Sample	Test	Design	Results
Mustanski& Liu, 2012	United States of America; 237 LGBT participants; 16-20 years old; 47.7% males, 52.3%; 61.6 % gay/lesbian, 28.7 % bisexual, and 9.7 % other (i.e., questioning, queer, unsure).	Diagnostic Interview Schedule for Children (DISC) computerized version 4.0 6-item Brief Hopelessness Scale (adapted from Hopelessness Scale for Children) Barratt Impulsiveness Scale (BIS-11) The Multidimensional Scale of Perceived Social Support (MSPSS) 5-item Boyhood Gender Conformity Scale in males and a validated 4-item adaptation for girls. An item from the Sexual Risk Behavior Assessment Schedule for Homosexual Youths. A 10-item measure assessed the frequency of lifetime experiences of victimization "because you are, or	A structured psychiatric interview (assessing clinical depression, conduct disorder symptoms, and past and prospective suicide attempts over a 1-year follow-up period) Questionnaires (measuring general risk factors for suicide attempts: hopelessness, impulsiveness, and perceived social support; LGBT specific suicide risk factors: gender nonconformity, age of first same-sex attraction, and LGBT victimization)	Out of 9 variables examined, 7 were related to lifetime history of attempted suicide: hopelessness, depression symptoms, conduct disorder symptoms, impulsivity, victimization, age of first same-sex attraction, and low family support. Depressive symptoms and hopelessness mediated the relation between multiple risk and resilience factors and suicide attempts. Suicide attempt history was the strongest predictor of prospective suicide attempts. Participants who previously attempted suicide (31.6 % of the sample) had more than 10 times

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Reference	Sample	Test	Design	Results
		were thought to be, gay, lesbian, bisexual, or transgender”.		greater odds of making another attempt in the 1-year follow-up period than were those who had made no previous attempt.
Russell & Joyner, 2001	United States of America; 6254 adolescent girls and 5686 adolescents; same-sex relationships: 1.1% of boys and 2.0% of girls, same-sex romantic attractions: 7.3% of boys and 5% of girls, both same-sex romantic attraction and relationship: 0.5% of boys and girls.	<p>Two dichotomous reports of suicidal thoughts and behaviors.</p> <p>Hopelessness was measured with a single item: “You felt hopeful about the future.”</p> <p>Center for Epidemiologic Studies – Depression inventory (CES-D)</p> <p>Alcohol abuse was measured with the sum of 9 items that indicate problems associated with alcohol use during the past 12 months.</p> <p>Two questions pertained to recent experiences with suicide.</p> <p>Victimization was measured with affirmative responses to any of the following 4 items: “Someone pulled a knife or gun on you,” “You were jumped,” “Someone shot you,” and “Someone cut or stabbed you.”</p>	<p>Audio computer-aided self-interview</p> <p>Survey</p>	<p>There is a strong link between adolescent sexual orientation and suicidal thoughts and behaviors.</p> <p>The strong effect of sexual orientation on suicidal thoughts is mediated by critical youth suicide risk factors, including depression, hopelessness, alcohol abuse, recent suicide attempts by a peer or a family member, and experiences of victimization.</p>

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Reference	Sample	Test	Design	Results
Patrick et al., 2013	United States of America; 27,752 adolescents in public school grades 8, 10, and 12.	<p>Bullying – A binary measure derived from the survey question: “In the past 30 days, how often were you bullied, harassed, or intimidated at school or on your way to or from school because someone thought you were gay, lesbian or bisexual (whether you are or are not)?”</p> <p>Youth QOL Instrument – Healthy Youth Survey Version (YQOL – HYS)</p> <p>Depression and suicide ideation – A binary measure of depressed mood was derived from the question “During the past 12 months, did you ever feel so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some usual activities?” Students who answered “yes” were asked about suicide ideation: “During the past 12 months, did you ever seriously consider attempting suicide?”</p>	Survey	<p>Among male students, 14%, 11%, and 9% reported being bullied because of perceived sexual orientation in 8th, 10th, and 12th grades, respectively; and among female students, 11%, 10%, and 6%.</p> <p>In all gender and grade strata, being bullied because of PSO was associated with lower quality of life scores and increased the odds of depressed mood or consideration of suicide. Moreover, the magnitudes of these associations were greater than for being bullied for other reasons.</p>
Walls et al., 2012	United States of America; sexual minority youths and	Two questions regarding victimization: (1) Physical harassment and attack by a family	Survey	Prevalence of cutting was higher than that found in community-based samples of similar

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Reference	Sample	Test	Design	Results
	young adults (n = 265)	<p>member because of sexual orientation or gender identity, (2) Harassment at school because of perceived sexual orientation or gender identity.</p> <p>Experiences of homelessness: Whether respondents had slept on someone's couch, outside, or in a shelter because they had nowhere else to go.</p> <p>Two questions regarding mental health: (1) Depressed feelings, (2) the number of suicide attempts in the past 12 months.</p> <p>Four questions regarding legal and illegal drug use: (1&2) The frequency of tobacco and alcohol usage in the previous 30 days, (3&4) lifetime usage of methamphetamines and inhalants.</p> <p>Level of "outness" – a Likert-type scale ranging from "very out" to "not at all out."</p> <p>Social support: Respondents were asked whether they had a teacher, counselor, social worker, or other adult</p>		<p>age groups. However, similar patterns of risk were found with regard to peer victimization, homelessness, suicidality, and depression.</p> <p>Female and transgender respondents were more likely to have engaged in cutting behavior than were malerespondents.</p> <p>No significant race-based differences emerged.</p> <p>Both age and having knowledge of a supportive adult were associated with decreased likelihood of cutting.</p> <p>Additional findings link higher levels of "outness," higher occurrence of suicidality among social network, and higher rates of smoking to increased likelihood of cutting.</p>

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Reference	Sample	Test	Design	Results
		in their school or college who they felt safe talking to about their sexual orientation or gender identity.		
		A question about the prevalence of suicide among the participant's network of friends.		
		Two questions regarding cutting behavior: (1) Frequency, (2) Activities helped the respondent refrain from engaging in cutting behavior.		
Blosnich&Bossarte, 2012	United States of America; a national sample of college-attending 18- to 24-year-olds, n = 8,576; male = 3,150, female = 5,426; gay/lesbian = 21%, bisexual = 29.2%, heterosexual = 49.8%.	<p>Violence-related stressors: Reports of experiencing physical assault, sexual assault or intimate partner violence in the last 12 months.</p> <p>Familial strain: A question that asked respondents if, in the past 12 months, they had family problems that were either traumatic or very difficult to handle.</p> <p>One item asked respondents whether they had experienced discrimination in the last 12 months and whether it affected their academic performance and to what degree it</p>	Survey (paper-and-pencil or Web based format or both)	<p>Sexual minorities reported more socially based stressors than heterosexuals.</p> <p>Significantly higher prevalence of self-injurious behavior, suicide ideation, and suicide attempt among sexual minorities relative to their heterosexual peers.</p> <p>Bisexuals exhibited greatest prevalence of self-injurious and suicidal behaviors.</p> <p>In adjusted models, intimate partner violence was most consistently associated with self-</p>

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Reference	Sample	Test	Design	Results
		affected their schooling.		injurious behaviors.
		Mental health: Self-injurious behavior, suicide ideation, and suicide attempt in the last 12 months.		
LeVasseur et al., 2013	United States of America; 11,488 respondents; male = 47.8%, female = 52.2%; sexual minority = 7.9%.	Suicide attempt: "During the past 12 months, how many times did you actually attempt suicide?" School bullying: "During the past 12 months, have you ever been bullied on school property?"	Survey	Compared with non-sexual minority youths, sexual minority youths had 4.39 and 1.96 times higher odds, respectively, of attempting suicide and reporting bullying. Those who reported bullying, who identified as sexual minorities, who identified as Hispanic, and who were female were more likely to report suicide attempt. These identities appear to interact with one another to modify the relationship between reported bullying and reported suicide attempt.
Russell et al., 2011	United States of America; 245 California-based LGBT young adults between the ages of 21 and	A 10-item retrospective scale assessed school victimization due to actual or perceived LGBT status between the ages of 13 and 19 years (adapted from	Survey	Lesbian, gay, bisexual, and transgender-related school victimization is strongly linked to young adult mental health and risk for STDs and HIV;

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Reference	Sample	Test	Design	Results
	25 years; male = 46.5%, female = 44.9%, transgender = 8.6%.	the California Healthy Kids Survey measure on violence, safety, harassment, and bullying). Victimization occurred due to reasons other than perceived or actual LGBT identity: Race or weight. 20-item version of the Center for Epidemiologic Studies-Depression Scale (CES-D) One item on suicidal ideation; one item on suicide attempt, and one item on serious attempts that required medical attention. Life satisfaction: An 8-item scale The 10-item Rosenberg Self-Esteem Scale Heavy drinking behavior: Two items Problems due to substance use and abuse: Four items Sexual risk: (1) Diagnosis of a sexually transmitted disease, (2) Risk for HIV infection over the past 6 months.		there is no strong association with substance use or abuse. Elevated levels of depression and suicidal ideation among males can be explained by their high rates of LGBT school victimization.

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Reference	Sample	Test	Design	Results
Hightow-Weidman et al., 2011	United States of America; 351 racial/ethnic minority young men who have sex with men (YMSM); mean age = 20.4; gay = 65.5%, bisexual = 20.5%; African-American = 67.5%, Latino = 20.2%, multiracial = 12.3%.	Racial bullying: Two items Sexuality-related bullying: Three items The Center for Epidemiologic Studies Depression Scale (CES-D) Two other indicators to measure emotional distress: (1) Suicidal ideation, (2) Prior acts of self-harm. Support from family: Two items Support from close friends: One item Parental abuse: One item	Survey Longitudinal study	Overall 36% and 85% of participants experienced racial and sexuality-related bullying, respectively. There was a significant association between experiencing a high level of sexuality-related bullying and depressive symptomatology ($p = 0.03$), having attempted suicide ($p = 0.03$), and reporting parental abuse ($p = 0.05$). No association between racial bullying and suicide attempts was found. In a multivariable logistic regression model, experiencing any racial bullying and high sexuality-related bullying were significant predictors of having a CES-D (The Center for Epidemiologic Studies Depression Scale) score ≥ 16 ; adjusted odds ratio (OR) 1.83 and 2.29, respectively.
Burton et al., 2013	United States of America; 192 adolescents ranging in age	Victimization due to actual or perceived sexual minority status was measured at waves 1 and 2 by four		Compared to heterosexual youth, sexual minority youth reported higher levels of

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Reference	Sample	Test	Design	Results
	from 14 to 19; sexual minority = 29% (female = 25%, male = 4%, White = 6%, racial/ethnic minority = 23%), heterosexual = 71% (female = 45%, male = 50%, White = 28%, racial/ethnic minority = 43%).	items that assessed the frequency during the past 6 months of being teased/bullied, hit/beaten up, treated unfairly, or called bad names because someone thought the participant was gay/lesbian. Center for Epidemiologic Studies Depression Scale (CES-D) Lifetime history of suicidal thoughts and intent: Wave 1 “Have you ever thought about or attempted to kill yourself?”, Wave 2 “In the past 6 months have you ever thought about or attempted to kill yourself?”		sexual minority-specific victimization, depressive symptoms, and suicidality. Sexual minority-specific victimization significantly mediated the effect of sexual minority status on depressive symptoms and suicidality. The results support the minority stress hypothesis that targeted harassment and victimization are partly responsible for the higher levels of depressive symptoms and suicidality found in sexual minority youth.
Mueller et al., 2015	United States of America; 75,344 adolescents; heterosexual = 93.49%, gay or lesbian = 1.76%, bisexual = 4.76%; White = 49.40%, Black = 19.8%, Hispanic = 30.80%	Suicide ideation: “During the past 12 months, did you ever seriously consider attempting suicide?” Bullying: (1) “During the past 12 months, have you been bullied on school property?”, (2) “During the past 12 months, have you ever been electronically bullied (include being bullied through e-mail, chat rooms, instant	Survey	White and Hispanic gay and bisexual males, white lesbian and bisexual females, and Hispanic bisexual females were more likely to be bullied than were white heterosexual adolescents. Black lesbian, gay, and bisexual youths' vulnerability to being bullied was not significantly

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Reference	Sample	Test	Design	Results
		messaging, Web sites, or texting)?"		different from that of white heterosexual youths. Black and Hispanic heterosexual youths were less likely to be bullied than were white heterosexual youths. Despite differences in the likelihood of being bullied, sexual minority youths were more likely to report suicide ideation, regardless of their race/ethnicity, their gender, or whether they have been bullied.
Ferlatte et al., 2015	Canada; 8,382 Canadian men; gay = 64.5%, bisexual = 32.5%, heterosexual = 2.1%, other = 1.0%.	Suicide related ideation and behavior: (1) "Have you ever thought about suicide?", (2) "Have you ever attempted suicide?". (prior to the last 12 months, within the last 12 months, or both prior to and within the last 12 months). Lifetime experiences of anti-gay marginalization and violence: (1) Verbal violence and/or hate talk, (2) Physical violence, (3) Anti-gay bullying (i.e. harassment, cyber-bullying), (4) Sexual violence (i.e.	Survey	Suicide ideation and attempts were positively associated with each individual marginalization indicator (verbal violence, physical violence, bullying, sexual violence and work discrimination) and psychosocial health problems (smoking, party drugs, depression, anxiety, STIs, HIV risk and HIV). Furthermore, prevalence of suicide ideation and attempts increased with each added

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Reference	Sample	Test	Design	Results
		<p>unwanted sex), and (5) workplace discrimination based on their sexuality.</p> <p>Psychosocial health problems: Experiences in the last 12 months: (1) Frequent consumption of tobacco (regular/daily smokers), (2) Use of one or multiple of the following party drugs, (3) Being on medication for depression, (4) Being on medication for anxiety, (5) Being diagnosed with one or more sexually transmitted infections (STIs), (6) One or more episodes of condomless anal intercourse (insertive or receptive) with a partner (CAI-US), whose HIV status was unknown or discordant, and (7) Have ever been diagnosed with HIV.</p>		<p>psychosocial health problem.</p> <p>Those who reported 3 or more had 6.90 (5.47–8.70) times the odds of experiencing suicide ideation and 16.29 (9.82–27.02) times the odds of a suicide attempt compared to those with no psychosocial health problems.</p>
Bergen et al., 2013	Netherlands; 274 Dutch lesbian, gay, and bisexual youths.	<p>Lifetime suicidal ideation and suicide attempts were each measured with 1 item (1 = no; 2 = yes).</p> <p>Experiences of homophobic victimization in the preceding 12 months by parents, family members outside the nuclear family, at</p>	Survey	<p>Suicidality among Dutch LGB youths is significantly higher than among heterosexual youths.</p> <p>The impact of victimization on suicidality depends on the context in which the victimization takes place. Negative</p>

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Reference	Sample	Test	Design	Results
		school, and by people in the neighborhood were measured with 1-item questions.		<p>reactions at school were related to both suicidal ideation and suicide attempts, whereas negative reactions by parents were only related to suicide attempts.</p> <p>Although negative reactions from parents were related to suicidality among LGB youths, it should be noted that victimization at school was the strongest predictor.</p>
Muehlenkamp et al., 2015	United States of America; 137 college students who were at least 18 years old, identified as a sexual minority.	<p>Schedule of Sexually Discriminatory Events (SSDE; House, Coppeans, & Stepleman: <i>The Schedule of Sexually Discriminatory Events</i>, unpublished)</p> <p>Expectation of rejection: A self-designed series of questions asking participants about their degree of worry related to expecting negative interactions.</p> <p>Interpersonal Needs Questionnaire</p> <p>Acquired Capability Scale</p> <p>Inventory of Statements About Self-Injury</p>	Survey	<p>Sexual minorities who experience minority stress may be at elevated risk for non-suicidal self-injury (NSSI), especially if they also perceive themselves to be a burden on others.</p> <p>Subsequently, having engaged in NSSI appears to confer increased risk for suicidal thoughts and behaviors both directly and by increasing acquired capability.</p>

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Reference	Sample	Test	Design	Results
King et al., 2008	United Kingdom; data was extracted on 214,344 heterosexuals and 11,971 non-heterosexual people.	<p><i>Databases: Medline, Embase, PsycInfo, Cinahl, the Cochrane Library Database, the Web of Knowledge, the Applied Social Sciences Index and Abstracts, the International Bibliography of the Social Sciences, Sociological Abstracts, the Campbell Collaboration and grey literature databases.</i></p> <p><i>Articles published January 1966 to April 2005.</i></p> <p><i>Search terms: All related to homosexual, lesbian and bisexual people and all related to mental disorders, suicide, and deliberate self-harm.</i></p> <p><i>Inclusion: Papers on population based studies which contained concurrent heterosexual comparison groups and valid definition of sexual orientation and mental health outcomes.</i></p> <p><i>Of 13,706 papers identified, 476 were initially selected and 28 (25 studies) met inclusion criteria. Only one study met</i></p>	Systematic review and meta-analysis	<p>LGB people are at higher risk of suicidal behavior, mental disorder and substance misuse and dependence than heterosexuals.</p> <p>The results of the meta-analyses demonstrate a twofold excess in risk of suicide attempts in the preceding year in men and women, and a fourfold excess in risk in gay and bisexual men over a lifetime.</p> <p>Similarly, depression, anxiety, alcohol and substance misuse were at least 1.5 times more common in LGB people. Findings were similar in men and women but LB women were at particular risk of substance dependence, while lifetime risk of suicide attempts was especially high in GB men.</p>

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Reference	Sample	Test	Design	Results
		<i>all our four quality criteria and seven met three of these criteria.</i>		
Shields et al., 2012	United States of America; 2,154 students in grades 9 – 12 across 15 SFUSD high schools.	<p>Three suicide risk-related outcomes from the Youth Risk Behavior Survey (YRBS) were analyzed as dichotomous dependent variables: (1) Sadness/Depression, (2) Suicide plan, (3) Suicide attempt.</p> <p>A five-item scale measuring alcohol and marijuana use: Current alcohol use, binge drinking, drinking at school, marijuana use, marijuana use at school.</p> <p>A five-item scale measuring other drug use: Lifetime use of cocaine, inhalants, heroin, methamphetamines, ecstasy.</p> <p>A five-item scale measuring victimization: In past 12 months – bullied at school, skipped school for safety concerns, got in a physical fight, injured in a fight, threatened or injured with a weapon at school.</p>	Survey	<p>Lesbian, gay, or bisexual (LGB) youth reported significantly higher rates of substance use, victimization, and suicide risk-related outcomes than heterosexual youths.</p> <p>However, in the controlled regression models, victimization was a significant predictor of sadness/depression and suicide attempts, regardless of sexual orientation.</p> <p>There was a significant interaction effect between sexual orientation and victimization on suicide planning, with heterosexual youths more affected than LGB youths.</p>

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Reference	Sample	Test	Design	Results
		An item measuring sexual orientation: “Which of the following best describes you?” (heterosexual; gay/lesbian; bisexual; not sure).		
Marshall et al., 2011	United States of America; mean age = 18 years, and an upper bound of the age range not exceeding 21 years.	<p><i>Inclusion: (1) Reported rates of depression and/or suicidality among sexual minority and heterosexual youth, (2) A sample mean age of ≤ 18 years, and an upper bound of the age range not exceeding 21 years.</i></p> <p><i>Databases: PsycInfo and MedLine</i></p> <p><i>Search terms: Suicide, depression, gay, lesbian, LGB, adolescent.</i></p> <p><i>A total of 20 suicide and 12 depression studies were identified, resulting in 24 total studies with seven of them examining both outcomes.</i></p>	Meta-analysis	<p>SMY reported significantly higher rates of suicidality (odds ratio [OR] = 2.92) and depression symptoms (standardized mean difference, $d = .33$) as compared with the heterosexual youth.</p> <p>Disparities increased with the increase in the severity of suicidality (ideation [OR = 1.96], intent/plans [OR = 2.20], suicide attempts [OR = 3.18], suicide attempts requiring medical attention [OR = 4.17]).</p> <p>Effects did not vary across gender, recruitment source, and sexual orientation definition.</p>

DISCUSSION

This narrative review identified sixteen studies in examining the relationship between victimization, depression, and suicide ideation among lesbian, gay, and bisexual (LGB) individuals.

Victimization among sexual minorities

Researchers agree that victimization can cause a highly stressful experience for its victim (O'Brennan et al., 2009; Rigby, 2003). Several studies have suggested that individuals perceived as sexual minorities (i.e., gay, lesbian, bisexual, and transgendered) are specific targets of victimization (Berlan et al., 2010; Williams et al., 2003). Patrick et al. (2013), in investigating the association between perceived sexual orientation, bullying, and quality of life among US adolescents, indicated that there is a substantial and significant impact of bullying on youth quality of life. Compared to their heterosexual counterparts, sexual minority individuals are more likely to report sexual minority-specific victimization (Burton et al., 2013; LeVasseur et al., 2013; Shields et al., 2012). For example, a study conducted among 351 racial/ethnic minority young men with a mean age of 20.4 years, who have sex with men, revealed that overall, 74.1% reported being made fun of because of their sexuality, 58% reported being treated rudely or unfairly because of their sexuality, and 16.2% reported being hit or assaulted because of their sexuality, of which 4% experienced physical violence many times (Hightow-Weidman et al., 2011). It is important to note that there is a gender difference when it comes to the victimization of sexual minorities – males are more likely than females to report victimization because of both perceived sexual orientation and identified sexual orientation (Patrick et al., 2013; Russell et al., 2011). Furthermore, Mueller et al. (2015), in examining the intersections of sexual orientation, gender, and race/ethnicity, proposed that there is a racial difference in bullying among LGB youths – where white LGB youths were more likely to be bullied than their white same gender, heterosexual peers; however, black LGB youths, on the other hand, were no more vulnerable to bullying than their same gender white heterosexual peers.

Victimization and depression among sexual minorities

Sexual minorities are more vulnerable to poor mental health outcomes than sexual majorities (Mueller et al., 2015; King et al., 2008; Marshal et al., 2011, Russell et al., 2001; Patrick et al., 2013; Russell et al., 2011; Hightow-Weidman et al., 2011). Marshal et al. (2011), in studying the disparities between rates of depression symptoms in sexual minority and heterosexual youths, suggested that sexual minority youths experience significantly higher levels of depression symptoms than heterosexual youths. According to King et al. (2008), in understanding the association between LGB individuals and the risk of mental disorder, depression is at least 1.5 times more common in LGB individuals than in heterosexuals. These poorer mental health outcomes among sexual minorities, compared to sexual majorities, are associated with LGBT victimization (Russell et al., 2011; Burton et al., 2013). For example, High tow-Weidman et al. (2011), in assessing the relationship between sexual identity-based maltreatment and emotional

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distress among sexual minority young men, indicated that there is a significant association between experiencing a high level of sexually-related victimization and depressive symptomatology. Russell et al. (2011), in investigating the relationship between reports of LGBT school victimization and young adult psychosocial health, also revealed that LGBT young adults who experience victimization are 2.6 times more likely to report depression above the clinical cut-off (CES-D ≥ 16).

Victimization and suicide ideation among sexual minorities

Sexual minorities are more likely to report having suicide ideation and attempt than their heterosexual counterparts – this is associated with LGBT victimization (Russell et al., 2001; Blosnich & Bossarte, 2012; LeVasseur et al., 2013; Russell et al., 2011; Hightow-Weidman et al., 2011; Burton et al., 2013; Muehlenkamp et al., 2015; Walls et al., 2010; Mueller et al., 2015; Ferlatte et al., 2015; Bergen et al., 2013; King et al., 2008; Shields et al., 2012). Russell et al. (2011), in investigating the relationship between reports of LGBT school victimization and young adult risk behavior, reported that LGBT young adults who experienced victimization were 5.6 times more likely to report having attempted suicide that required medical attention at least once. Ferlatte et al. (2015), in understanding the factors contributing to higher rates of suicide related ideation and behavior in Canadian gay and bisexual men, stated that 49.9% of the sample reported lifetime experiences of suicide ideation and attempt – this was over six times greater than that reported by Canadian heterosexual men. Even though suicide ideation among sexual minorities is associated with LGBT victimization, some studies propose that sexual minorities are still more likely to report having suicide ideation and attempt compared to heterosexual individuals even with victimization as well as other important explanatory variables (e.g., social stigma or a lack of social support) held constant (Mueller et al., 2015; Marshal et al., 2011). Furthermore, it is interesting to note that sexual minorities who are bisexual are more likely to report suicide ideation and attempt than sexual minorities who are not bisexual (Marshal et al., 2011; Blosnich and Bossarte, 2012). A *double closet framework* has been used in understanding elevated risk profiles among bisexuals; in that they must keep secret their homosexual activities, attractions or relationships from their heterosexual social groups, and conversely with their homosexual social groups (Blosnich and Bossarte, 2012).

The role of depression in understanding suicide ideation among sexual minorities

Studies suggest that symptoms of depression are correlated with a lifetime history of suicide ideation and attempt among LGBT individuals (Mustanski and Liu, 2012; Russell et al., 2001; Ferlatte et al., 2015). Russell et al. (2001), in examining adolescent sexual orientation and suicide risk, proposed that youths with same-sex sexual orientation, reporting elevated levels of suicidality, are more likely to feel depressed and hopeless. Ferlatte et al. (2015), in understanding the factors contributing to higher rates of suicide related ideation and behavior among Canadian gay and bisexual men, reported that when all health problems (i.e., smoking, party drugs, depression, anxiety, STIs, HIV risk and HIV) were included in a single model (multi-indicator),

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the association with suicide ideation and attempt was removed; but remained strongest for depression. This is not surprising since mood disorders are known to convey the highest risk for suicide related ideation and behavior in general populations (Ferlatte et al., 2015).

LIMITATIONS

There are several limitations in this narrative review. First, most of the studies conducted are cross-sectional and do not allow one to determine causal relationships. Second, because all of the studies are self-reported, it is hard to know to what extents sexual minorities over-report or under-report experiences of victimization, mental health problems, suicide thoughts and suicide attempts. Nevertheless, recall bias of these experiences is unlikely because these events are considered highly salient to sexual minorities. Furthermore, some sexual minorities may choose not to report these experiences because of social stigma or a fear of retaliation. Third, most of the studies do not include sexual minorities who are high school dropouts, jobless, incarcerated, homeless, or runaways; and, because sexual minority individuals are more likely to be homeless or runaways (Cochran et al., 2002), these studies may lack generalizability. Fourth, the sample of these studies is largely from the United States; and thus, the results obtained may not be generalizable outside this country. Finally, the studies that have random or census samples constitute national datasets as these samples came first from a convenience sample of institutions that elected to administer the survey. For this reason, there may be selection bias; in which organizations or institutions opt to participate, and therefore, it may not be appropriate to generalize the findings to a nationwide or international population.

CONCLUSION

This narrative review examines current existing literature and studies in discussing the relationship between victimization, depression, and suicide ideation and attempt among lesbian, gay, and bisexual (LGB) individuals. There is a consensus among researchers with respect to the notion that victimization represents a highly stressful experience for its victims (O'Brennan et al., 2009; Rigby, 2003). Several studies have suggested that individuals perceived as sexual minorities (i.e., gay, lesbian, bisexual, and transgendered), are specific target of victimization (Berlan et al., 2010; Williams et al., 2003). Compared to their heterosexual counterparts, sexual minority individuals are more likely to report sexual minority-specific victimization (Burton et al., 2013; LeVasseur et al., 2013; Shields et al., 2012). Furthermore, sexual minorities are more vulnerable to poor mental health outcomes (e.g., the symptoms of depression) than sexual majorities; and this is related to LGBT victimization (Mueller et al., 2015; King et al., 2008; Marshal et al., 2011; Russell et al., 2001; Patrick et al., 2013; Russell et al., 2011; Hightow-Weidman et al., 2011). Furthermore, sexual minorities are more likely to report having suicide ideation and attempt than heterosexuals and this is associated with LGBT victimization (Russell et al., 2001; Blosnich and Bossarte, 2012; LeVasseur et al., 2013; Russell et al., 2011; Hightow-Weidman et al., 2011; Burton et al., 2013; Muehlenkamp et al., 2015; Walls et al., 2010; Mueller et al., 2015; Ferlatte et al., 2015; Bergen et al., 2013; King et al., 2008; Shields et al., 2012).

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Finally, several studies suggest that there is a significant correlation between symptoms of depression and a lifetime history of suicide ideation and attempt among LGBT individuals (Mustanski and Liu, 2012; Russell et al., 2001; Ferlatte et al., 2015).

Studying the prevalence of the relationship between victimization, depression, and suicide ideation and attempt among sexual minorities presents several implications. For example, assessing mental health and risk behavior of LGBT individuals, in relation to whether they have experienced victimization because of their sexual orientation, might help to identify specific areas to address in interventions. Furthermore, knowing the prevalence of victimization caused by one's sexual orientation, as well as the extent of depressive symptoms and suicide ideation present in a sexual minority community, is useful for policy makers and organizations interested in monitoring and evaluating prevention efforts.

It is easy to pathologize the entire population when studying health (including mental health) disparities in an at-risk population such as sexual minorities. Nevertheless, it is important to point out that in the larger population, there are sexual minority individuals who are well-adjusted and have no significant symptoms of depression or history of suicidality. This suggests that resilience can be found in every at-risk population. Some studies have identified protective factors such as Gay Straight Alliances in schools (Hatzenbuehler, 2011) and family acceptance (Ryan et al. 2010). Future research should explore resilience factors that are proven to protect sexual minority individuals in order to develop effective programs and interventions in improving the mental health of these sexual minorities. Last but not least, similar studies are encouraged to be conducted or replicated in other countries with local population sample for comparative purposes.

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Conflict of Interests

The author declared no conflict of interests.

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When Dress Code Becomes Sex Code

Jeny Rapheal^{1*}

ABSTRACT

The paper introduces a new concept called 'sex-code' which is highly subjective and quite personal. Testosterone level, sexual curiosity, age, moral/cultural inhibitions etc-- all take part in determining the compendium of sex codes for a particular individual. One symbol, mannerism or image can act as a code of sex for some but need not be so for many others. In the modern world adolescent sex curiosity is capable of transcending moral, cultural inhibitions and anything in the class room can serve as a sex-code for him including the physical appearance of the teacher. The past studies substantiate that curiosity especially sexual curiosity is not different from fundamental basic drives of human beings and it is capable of disrupting intellectual, emotional, social equilibrium in the person subjected to it. Thus sex curiosity can emerge as a hindrance in effective learning.

Keywords: *Adolescence, Sex, Curiosity, Sex Curiosity, Learning, Internet Addiction, Dress Code, Pornography*

As definition goes by a code is “a system of signals used to represent letters or numbers in transmitting messages requiring secrecy or brevity in which arbitrarily chosen words, letters or symbols are assigned to define the meanings”. Pin code helps the post master to pinpoint the locality of the recipient easily. Google verification code gives the user a feeling of security. Bank codes are sacred and one of the many serious secrets we keep to ourselves. We do not trust many computer and internet codes. Still they give us a sense of authority as nobody-- our parent, spouse; teachers can decode it except hackers. The act of applying a code and the opening response ensuing it exudes a pleasing sense of satisfaction. Breaking a code of which we are not the custodians is accompanied by a sense of adventure.

Dress codes differ from the above mentioned technical codes in their subjectivity. Doctor's white coat prods the patients to see “healers as angels in white” (Adam H, & Galinsky, 2012). “White without spot or pride” (Edmund Spencer) and “white as utter truth” (Alfred Tennyson) frame a doctor in a god like image. His power to prolong human life by fighting diseases is divine.

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Teacher's professional dress code, though not strictly defined in any culture, a teacher is expected to be modest in her selection of dress. Professional attire that will clad a teacher in a god-like aura as that of doctor's is yet to be articulated.

Are there Sex Codes?

What is sex code? Anything capable of opening up a sexual surge can be deemed as a sex-code. Like a dress code it is highly subjective. But unlike dress codes it is quite personal/individualistic. One symbol or mannerism can act as a code of sex for me but not for a person sitting next to me. Testosterone level, sexual curiosity, age, moral/cultural inhibitions etc... all take part in determining the compendium of sex codes for a particular individual. Moreover, not all people are always aware of or mindful about their sex codes. It operates unconsciously for them. Perceptual cues having connotations of sex act as keys for decoding their codes and push the individual into a mode of craving—sexual craving.

The renowned celestial Malayalam singer, Dr. K J. Yesudas perceives 'jeans wearing ladies' as a sex code. According to him seeing a lady in jeans can cause "trouble" and "people are tempted to pay attention to what is beyond it" and this "forces them to do undesirable things" (The Hindu daily, 2014, oct.3). Just seeing a lady in jeans can work as a code for opening sexual paraphernalia in the head of some (not all) males. It may grab their attention, unleash their curiosity to think what is "beyond" it and even may drag into undesirable acts like rape. That means lady's jeans act as a code for sexuality at least in some. For some, it is a little part of stomach or curves of breasts of a lady involuntarily peeping out of her modestly clad traditional sari. For another, a coy smile of maiden lass can be a code capable of opening the reservoir of sex juices in the body and begin its onward course to genitals. Yet, for pedophiles an innocent angelic smile of a baby girl is enough. For a prostitute nothing but money paid by the customer can serve as the best code for arousal. So sex codes function from within and sensory signals (visual, auditory etc) from the environment act as cues capable of breaking codes or, simply put, as triggers.

Adolescent Sexual Curiosity

Think of a modern adolescent who gathers information related to sex mostly from friends (Jones & Biddlecom 2011) and internet. What will be serving as his code? According to neuroscience, the reason for the behavioral immaturity of teenagers is their brains' onward course of development. His emotional brain ---including limbic system-- develops first and the reasoning brain---including prefrontal cortex---matures late, approximately towards mid-twenty. Sexual curiosity coupled with an emotional brain if not guided by proper, realistic sex education can play havoc on his moral, educational, social life. In a study conducted in USA (Marshall Smith, 2012) it was found that main motivating factor which prompted adolescents to view sexually explicit content in internet was curiosity about sex.

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Philosopher Thomas Hobbes called curiosity as “the lust of mind” though Lady Roosevelt addressed it as “the most useful gift”. Researchers in human sciences describe curiosity as an inexorable drive like hunger or thirst. It is triggered by incongruence between something and individual’s existing world view. In this sense, sexual curiosity in adolescence at first emerges as a desire to close an “information gap”. Afterwards its unfolding gathers momentum and onward course resembles that of a typical biological drive in intensity. In its active mode sexual curiosity can assume one or more of the following patterns. 1) Epistemic curiosity--- desire for information and knowledge 2) Perceptual curiosity---one’s basic tendency to draw attention to novel objects in immediate environment 3) Specific curiosity---desire for particular piece of knowledge such as final piece of content (Jonathan, 2012). One cannot categorize the nature of curiosity fueling the sexual hormones of a typical adolescent who habitually involves in watching porn. Nobody can deny the fact that class rooms of 20th century will have many adolescents watching porn on a daily basis--- irrespective of social, religious or economic background they are coming from. And studies have shown that internet sex renders curiosity into compulsion (Kathleen Kelleher, 2002). If left unsatisfied, curiosity intensifies itself overtime. (Lee and Qiu 2009). Then who knows what all things can function as sexual codes for an adolescent?

SEXUAL CURIOSITY AS A SNAG IN LEARNING PROCESS

Curious mindset is characterized by heightened arousal of emotion in response to stimuli (Berlyne 1954; Jepma et al. 2012; Loewenstein 1994). This explains elevated levels of general sensitivity in adolescence. When curiosity, coupled with a fundamental human drive (here sex) reaches at its peak, no amount of motivation injected into learning process can call back adolescent’s attention and anchor it on the material to study. The reason for this is, curious minds indulge in ruminative thinking over the missing information (Shani, Igou, and Zeelenberg 2009; Shani et al. 2012). Charged with emotions curiosity depletes the cognitive resources of individuals as they spend time and energy on cognitive elaboration and ruminative thinking to obtain answers to more provoking questions (Min Jeong et al. 2009, as cited in Kyra, 2015). The underlying mechanism by which sexual curiosity disrupts learning is that sexual curiosity does not allow to allocate an iota of attention to the learning content (Jepma et al. 2012; Menon and Soman 2002; Wilson et al. 2005) but it drags student’s attention towards the stimuli imbued with sex content or its connotations.

Inside the class room it may be teacher’s bare hands, or a little part of her stomach exposed while writing the equation $E=mc^2$ on the black board. Or it might be the projection of her breasts or her beautiful charming smile she exuded in affection. Anything like this can act as a sex code capable of opening up the flow of hormones into the genitals for an adolescent mind charged with sex curiosity. Only his mind knows what they are. Effective sex education is an apt answer for the dilemma. But actualization of it is a distant dream in India or Kerala and the reasons for this are many---cultural, religious, economic etc. --- and they remain unresolved till today

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What we teachers can do? We can reduce the possibility of adolescent's sex codes being activated by us. In his mind our body should not degrade to the level of sexy lady he watched in the internet last night and we must feel the need for defending our professional dignity. We can mind our dress code and save our body appearance becoming triggers for temptations and we must.

CONCLUSION

In the globalized world the repercussions of cultural intermixing are so poignant that we can never dream of new generation digesting the lofty ideal ---"Matha-Pitha-Guru- daivam" (treat your mother, father and teacher as gods) which the old Indian culture cherished as its invaluable and irreplaceable legacy. Newer solutions to newer problems inside the classroom should be our motto. Let teachers wear coats like doctors. Any color will do. According to Wicklund's self completion theory, clothes fulfill a need in the wearer (Wicklund & Gollwitzer, 2013). This is the answer to why we wear what we wear. By wearing coats we will be fulfilling our need for maintaining professional dignity, of course, by not triggering untoward needs in curious minds sitting in front of us.

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Internet Use and Suicidal Ideation among Young People: A Narrative Review

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ABSTRACT

The Internet is being widely used by many, and it has greatly affected the medical field, especially in terms of the learning and practice of psychiatry. Record-keeping and the transmission of information are facilitated and made available to many through accessibility to the Internet. However, there are some shortcomings following the advancement of the Internet. Suicide, which is regarded as a serious public health issue, has been related to the use of the Internet. Therefore, the aim of this review is to summarize and assess the existing work on the influence of internet usage over suicidal ideation and suicide attempts among young people. The appropriate studies were identified through four databases, namely Ebscohost, Ovid, PsyArticle and SAGE Publications. The key terms employed in the search were “problematic Internet use”, “Internet use”, “suicidal*” and “adolescent*”, and the publications were limited to the years 2005 to 2015. A total of fourteen studies were included in this review. The results suggested an association between search trends with the suicide-related terms and the suicide rate. In addition, young people also tend to portray their suicidal ideation through the Internet. Besides, the websites that were accessed using the suicide-related terms tended to be both pro- and anti-suicide. Therefore, it is suggested that future research should be aimed at developing websites which can provide assistance to the group at risk.

Keywords: *Internet Use, Young People, Adolescents, Suicide, Suicidal Ideation, Self-Harm*

The use of the Internet is said to have affected the practice of medicine, whereby it has significantly influenced the areas involved in the learning and practice of psychiatry, such as psychiatric education, clinical care, and administration (Alao, Soderberg, Pohl & Alao, 2006).

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By accessing the Internet, physicians and other practitioners are able to retrieve information regarding various psychiatric illnesses and treatments, while more patients are able to receive assistance such as from support groups, self-help groups, and discussion groups. Besides, with the aid of the Internet, record-keeping in clinical care settings and also the transmission of information concerning research works have become easier than before. However, the advantages of the Internet also come with some negative impacts.

Meanwhile, suicide is not only a serious public health problem in high-income countries, but is a global phenomenon that is affecting countries throughout the world. It is reported that more than 800,000 people end their life through suicide annually. Meanwhile, 75% of suicides globally were reported in low- and middle-income countries (World Health Organization [WHO], 2015). According to the WHO (2015), one of the major risk factors of suicide is suicide attempts, which occur at a higher ratio to every suicide reported, and suicide was also ranked as the second leading cause of death in youths aged 15 to 29 in 2012.

More than 100,000 sites on suicide appear on the worldwide web. According to Dobson (1999), these websites tend to condone suicide, and it is said that anyone who tries to advise users against committing suicide will be prohibited from accessing the sites. In addition, it has been reported that some of the suicide websites carry materials such as copies of suicide notes, death certificates, and colour photographs. The sites may also provide electronic boards which allow users to post suicide notes or suicidal intentions, and it is important to note that one site alone can easily receive 900 postings of suicidal ideation within a month. It has also been reported that young people between the ages of 14 to 24 years are at higher risk of suicide, and they tend to be more vulnerable to lower level peer support and are easily influenced by the information they receive. Therefore, this review was aimed at summarizing and assessing the existing work on the influence of Internet usage on suicidal ideation and suicide attempts among young people.

METHODOLOGY

A literature search was conducted through four major electronic databases, namely Ebscohost, Ovid, PsyArticle and SAGE Publications. The key terms used to facilitate the search were “problematic Internet use”, “internet use”, “suicidal*” and “adolescent*”. In addition, in order to be included in this review, the studies had to be written in English and published between the years 2005 and 2015. Besides, only full and accessible studies were included.

RESULTS

A thorough search was carried out on the four databases, as mentioned in the Methodology section, and fourteen studies which met the inclusion criteria were included in this review. The studies were then reviewed in terms of their aims, methods, samples, questionnaires used, if applicable, and also their main findings. Based on Table 1, out of the fourteen studies, seven were carried out on individuals aged from 10 to 24 years, with a total of 15,566 youths participating in the studies (Hinduja & Patchin, 2010; Katsumata, Matsumoto, Kitani &

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Takeshima, 2008; Harris, McLean & Sheffield, 2009; Mitchell, Wells, Priebe & Ybarra, 2014; Fu, Chan, Wong & Yip, 2010; Lin et al., 2014; Dunlop, More, & Romer, 2011), while the other studies were conducted through content analysis on websites, search trends with government data and one case study.

Several instruments were employed in the studies. In order to measure suicidal ideation among the participants, the Suicide Behaviours Questionnaire-Revised (SBQR), Suicidal Ideation Questionnaire (SIQ) and Beck Hopelessness Scale were used (Harris et al., 2009; Fu et al., 2010). In addition, the most frequently used instrument for measuring the severity of depression was the Centre for Epidemiologic Studies Depression Scale (CES-D) (Harris et al., 2009; Fu et al., 2010; Huang et al., 2014), while the other instruments can be referred to in the list in Table 1.

Table 1, Summary of studies

Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
Cash, Thelwall, Peck, Ferrell, & Bridge (2013)	To explore the ways in which adolescents use MySpace to comment on their suicidal thoughts and intentions.	Content analysis	- 64 comments from public profiles on MySpace - 13-24 years old	- NA	- Comments referenced a significant amount of hopelessness, despair, and desperation. - Adolescents use public Web to display comments about their suicidal thoughts, behaviors, and possible intentions.
Yang, Tsai, Huang, & Peng (2011)	To evaluate the association between suicide and Internet searches trends for 37 suicide-related terms representing major known risks of suicide.	Cross correlation analysis	Search trend data by Google Insights for Search during period from January 2004 to December 2009	- NA	- Suicide-related search terms, temporally coincided/preceded trends of suicide data, associated with suicide death.

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Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
Hinduja & Patchin (2010)	To examines the extent to which a nontraditional form of peer aggression – cyberbullying – is also related to suicidal ideation among adolescents	Random sample Survey	- 1963 middle-scholars (US)	- 4 items adapted from American School Health Association's (1989) National Adolescent Student Health Survey	- Youth who experienced traditional bullying or cyberbullying (offender/victim) had more suicidal thoughts, more likely to attempt suicide.
Katsumata, Matsumoto, Kitani, & Takeshima (2008)	To clarify the association between the experience of using electronic media and suicidal ideation in Japanese adolescents	Self-reporting questionnaire	- 590 junior high school students, mean age 13.7	- Designed to evaluate lifetime history of suicidal ideation. Experience of electronic media use, and personal communication in daily life.	- Lifetime history of suicidal ideation may be significantly associated with a history of searching the internet for information about suicide/self-injury, experiences of anxiety/emotional pain related to the use of electronic media, and adolescents' distrust of the people around them.
Harris, McLean, & Sheffield (2009)	To better help those in suicidal crisis by examining the types of suicide-risk individuals who make use of the Internet in relation to their suicidal problem	Online survey	- 18 and older - 1016 volunteer respondents - 290 (suicide risk)	- Suicide Behaviors Questionnaire-Revised (SBQR) - General Help-Seeking Questionnaire (GHSQ) - Center for Epidemiologic Studies Short Depression Scale (CES-D 10) - Online Relationship Building Scale	- Suicide-risk individuals who went online for suicide-related purposes reported greater suicide-risk symptoms, less likely to seek help, perceived less social support. - Many reported more support, felt less alienated – reduced suicidality - Sought suicide methods and likely to visit “pro suicide” sites

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Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
				(ORB) - Online Behaviors	
Mitchell, Wells, Priebe, & Ybarra (2014)	<ul style="list-style-type: none"> - Assess rates of thoughts of self-harm and thoughts of suicide in the past 30 days - Report past year rates of youth exposure to websites encouraging self-harm and suicide for all youth. Those who report thoughts of self-harm and those youth reporting thoughts of suicide - Examine the characteristics of youth who visit self-harm and suicide websites to determine whether similar risk factors present - Relationship between visiting these websites and actual thought of self-harm and suicide 	Telephone survey	<ul style="list-style-type: none"> - 1560 - 10-17 years old and parents 	- Trauma Symptom Checklist for Children	<ul style="list-style-type: none"> - Youth reported visiting a website that encouraged self-harm/suicide - 7 times more likely to say they had thought about killing themselves - 11 times more likely to think about hurting themselves
Singaravelu, Stewart, Adams, Simkin, & Hawton (2015)	To identify and analyze websites potentially accessed by these young people (at risk of self-harm)	<ul style="list-style-type: none"> - “mental state” – suicide, depression, self-harm - “how to self-harm” – how to self-harm, tips for self-harm, ways to kill yourself 	- 314 websites	- NA	<ul style="list-style-type: none"> - Sites accessed by self-harm/suicide search terms were mostly positive or preventive in tone - sites accessed by the term ways to kill yourself tended to have a negative tone - Information

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Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
		- Google, Yahoo, Bing, Askjeeves			about self-harm methods was common with specific advice on how to self-harm in 15.8% of sites, encouragement of self-harm in 7.0%, and evocative images of self-harm/suicide in 20.7%. Advice on how to get help was given in 56.1% of sites
Fu, Chan, Wong, & Yip (2010)	<ul style="list-style-type: none"> - To examine the prevalence of adolescents' internet addiction in Hong Kong, China - To test its differentiation from other correlates - To examine its relationships with correlates in a representative community sample of adolescents 	<ul style="list-style-type: none"> - Two-wave panel household survey - Self report 	- 208 adolescents age between 15-19 years old	<ul style="list-style-type: none"> - Internet addiction checklist by Young - Suicidal Ideation Questionnaire (SIQ) - Depression Anxiety Stress Scales (DASS) - Center for Epidemiologic Studies Depression (CES-D) Scale - Beck Hopelessness Scale (C-HOPE) - Irrational Values Scale 	<ul style="list-style-type: none"> - Prevalence rate for having 5/more symptoms of internet addiction was estimated to be 6.7% - Positive dose-response relationships were found between the number of symptoms of internet addiction and 1-year changes in scores for suicidal ideation and depressive symptoms
McCarthy (2010)	- To investigate the feasibility of monitoring the volume of suicide-related internet searches as a tool to more rapidly identify trends that could influence	- "suicide", "teen suicide", "depression", "divorce", "unemployment" were entered to Google Trends	- Year 2004-2009	- NA	<ul style="list-style-type: none"> - Google search volumes correlated to CDC statistics for both suicide and self-injury, but in patterns that differed by age. - internet search activity was negatively

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Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
	suicide risk on a population-wide level				correlated to the suicide rate in the general population, it was positively correlated to both intentional self injury and completed suicides among youth
Naito (2007)	- To analyse the subject of “net suicide” in Japanese society with reference to the mental health state among adolescents and young adults	Case study	- 4 cases	- NA	- Impact of internet usage on vulnerable adolescents and its link to “net suicide” - Internet is utilized by young people to facilitate group suicides
Silva (2010)	- To investigate the disturbing trend of Internet group suicide in Japan by examining the individual and social psychological aspects of Internet group suicide	Endography	- Internet suicide websites, two social commentaries in Japanese popular culture, work of developmental psychologist Philippe Rochat	- NA	- Participation in Internet suicide forum and even the act of Internet group suicide result from both a need for social connectedness and the fear of social rejection and isolation
Lin, Ko, Chang, Liu, Wang, Lin, Huang, Yeh, Chou, & Yen (2014)	- To examine the associations of suicidal ideation and attempt with Internet addiction and Internet activities in a large representative Taiwanese adolescent population	Stratified random sampling Questionnaires	- 9510 adolescents aged 12-18 years old	- Kiddie Schedule for Affective Disorders and Schizophrenia (Kiddie-SADS-E) - Chen Internet Addiction Scale (CIAS) - Center for Epidemiological Studies	- Internet addiction was significantly associated with suicidal ideation and suicidal attempt - Online gaming, MSN, online searching for information, and online studying were associated with an increased risk of suicidal ideation

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Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
				Depression Scale (CES-D) - Rosenberg Self-Esteem Scale (RSES) - Family APGAR Index (APGAR)	- online gaming, chatting, watching movies, shopping, and gambling were associated with an increased risk of suicidal attempt - watching online news was associated with a reduced risk of suicidal attempt
Whitlock, Powers, & Eckenrode (2006)	- To shed light on the role of message boards in spreading information about self-injurious practices and influencing help-seeking behavior	- Terms “self-injury”, “self-harm”, “self-mutilation”, “cutting” – Yahoo, Google, MSN, AOL, Gurl.com	- 400 self-injury message boards, 12-20 years old	- NA	- online interactions clearly provide essential social support for otherwise isolated adolescents - may also normalize and encourage self-injurious behavior and add potentially lethal behaviors to the repertoire of established adolescent self-injurers and those exploring identity options
Dunlop, More, & Romer (2011)	- To determine whether Internet sites, such as online news and social networking websites, expose young people to suicide stories that might increase suicide ideation	Interview	- 719 young people ages 14 to 24, participated in a prior nationally representative survey	- NA	- traditional sources of information about suicide were most often cited (79% were from friends and family or newspapers) - online sources were also quite common (59%) - Social networking sites were frequently cited as sources, but these reports were not linked to increases in ideation - online discussion forums were both

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Author (year)	Aim	Method	Sample	Name of Questionnaire	Result
					- cited as sources and associated with increases in ideation

DISCUSSION

Search trends on suicide. Studies based on search trends on suicide typically employed search engines such as Google, Yahoo, MSN, AOL, Bing and Gurl.com. In 2011, Yang and his colleagues carried out a cross-sectional analysis using 37 suicide-related terms to search Google Insight for a period ranging from January 2004 to December 2009 in Taiwan. The results indicated that a set of suicide-related terms temporally coincided with or led the trend on suicidal data. Besides, Yang et al. (2011) also reported that the variance of 30.2% in the suicide data was accounted for by search terms such as “major depression” and “divorce”. Meanwhile, by considering only the leading search trends, terms such as “divorce” and “complete guide of suicide” were identified having contributed to a variance of 22.7% in the suicide data.

Another study by McCarthy (2010) used search terms such as “suicide”, “teen suicide”, “depression”, “divorce” and “unemployment”. The researcher employed Google Trends, and the results were limited to the United States (US) from January 2004. The retrieved results were then directly compared with the data on suicide and intentional self-injury from the Centres for Disease Control (CDC). The results indicated that there was a correlation between Google search terms and the CDC statistics; however, there was a difference in the pattern according to age. It was reported that the Internet search activity was positively correlated to intentional self-injury and complete suicides among youths, but the pattern was the opposite for the general population. The researcher suggested that self-injurious behaviour among youths is facilitated by the use of the Internet (McCarthy, 2010).

Web page, self-injury and suicidal ideation. A study was done by Whitlock et al. (2006) with the purpose of discovering the role played by message boards as a medium for spreading information about self-injurious behaviour as well as their influence on help-seeking behaviour. The study used several terms such as “self-injury”, “self-harm”, “self-mutilation” and “cutting” for five search engines, namely Yahoo, Google, MSN, AOL and Gurl.com. 406 message boards were identified; with a tremendous increase being shown from year 1998 to 2000. The researchers also examined the contents of the message boards using content analysis, and 2942 posts were coded. The top five categories which were most frequently discussed were identified as informal support, motivation or triggers, concealment issues, addiction as well as formal help-

seeking or treatment. This suggests that message boards can serve as a social support platform for those who surf the net, and also to normalize their behaviour.

As mentioned, individuals tend to gain social support by surfing the net. A study by Silva (2010) on Internet suicide websites using the endography technique also suggested that participation in suicide forums as well as the actions of suicide groups on the Internet indicate the need for social connectedness in individuals. The results also indicate that individuals who participate in suicide websites fear isolation and social rejection. In addition, a content analysis carried out on comments posted in public profiles on Social networking sites (SNSs) also indicated that adolescents use the Internet as a platform to express their suicidal thoughts, behaviours and possible intentions through their comments. The comments were also found to be negative in tone, referring to hopelessness, despair and desperation (Cash et al., 2013).

Recently, Singaravelu et al. (2015) carried out a study on possible access to websites by young people at risk (self-harm) by employing several terms such as “suicide”, “depression”, “self-harm”, “how to self-harm”, “tips for self-harm” and “ways to kill yourself” in search engines such as Yahoo, Google and others. A number of 314 websites were retrieved. The results showed that sites with negative tones were only associated with search terms such as “ways to kill yourself”, but access to sites by using terms such as “self-harm” or “suicide” tended to be more positive.

Internet use and suicidal ideation. Fu et al. (2010) carried out a study on 208 adolescents aged 15 to 19 years in Hong Kong. The aim was to identify the prevalence of Internet addiction and other correlations among adolescents. The results showed that there was a positive dose-response between the number of symptoms of internet addiction and scores for suicidal ideation and depressive symptoms after a year. The results were similar to those obtained by Lin et al. (2014), who carried out their study on 9510 adolescents aged between 12 to 18 years. The results from the study also indicated that there was a significant association between Internet addiction and suicidal ideation and suicidal attempts. However, only certain types of online activities were reported to be associated with an increased risk of suicidal ideation such as online gaming, MSN, online searches for information, and online studying, but watching online news was reported to be associated with a reduced risk of suicidal attempts (Fu et al., 2014).

On the other hand, a study by Katsumata et al. (2008) for the purpose of identifying the association between the experience of using electronic media and suicidal ideation in Japanese adolescents indicated that there might be a significant association between individuals with a lifetime history of suicidal ideation and the search for information about suicide or self-injury through the Internet. The study also showed that adolescents tend to experience anxiety or emotional pain as well as distrust of the people around them (Katsumata et al., 2008). In another study by Harris et al. (2009) it was shown that individuals at risk of committing suicide and who used the Internet for suicide-related purposes reported a higher risk of symptoms. Apart from that, these individuals also tended to perceive that they had less social support and were less

likely to seek help. However, the report also suggested that some individuals also reportedly felt less alienated, which may have contributed to the reduction in the suicide rate (Harris et al., 2009). Meanwhile, a study with 1560 youths also showed that youths who were reported to visit self-harm or suicide websites were 7 times and 11 times more likely to kill and hurt themselves, respectively (Mitchell et al., 2014), while youths who experienced cyberbullying were also reported to have more suicidal thoughts and were more likely to attempt suicide (Hinduja & Patchin, 2010).

A study by Dunlop et al. (2011) showed that young people aged from 14 to 24 years received information about suicide mainly through traditional sources (friends and family). However, online sources were also common, whereby 59% of young people were reported to receive such information through online sources. The study also noted that only online discussion forums were reported to be associated with increases in suicidal ideation but not SNSs, which were reported as frequent sources of information about suicide. Besides, Naito (2007), who analysed several case studies on net suicide, identified a link between vulnerable adolescents and “net suicide”, as young people tend to use the Internet to facilitate group suicides.

LIMITATIONS

One of the limitations of this review is that although the researchers managed to identify the association between search terms and the suicide rate for a certain time frame, however, the causal effect of the relationship between these two is unclear. Apart from that, although the researchers have tried to identify the influence of Internet usage on suicidal ideation among young people, no standardized instrument has been developed. Hence, the results have to be interpreted cautiously.

CONCLUSION

As mentioned in the introduction, the aim of this review was to summarize and assess the existing work on the influence of Internet usage on suicidal ideation and suicide attempts among young people. A total of 14 studies were retrieved for this purpose, and the studies could be categorized into three types, namely cross-sectional studies, comparisons between search trends and available data, and content analyses and case studies of websites.

The results revealed that there are associations between search trends and the suicide rate. However, only some of the terms might be related but not the others. Meanwhile, the search terms that are used to lead to suicide-related websites are also different across age groups. Therefore, authorities may need to monitor the search trends to predict the occurrence of suicides in specific areas. Meanwhile, studies have also shown that young people tend to use the Internet as a platform to express their suicidal thoughts, to gain social support as well as to facilitate net suicide. In addition, unregulated WebPages that are usually free, such as online forums, which enable young people to express their thoughts freely without restriction, are also related to an increase in suicidal ideation.

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It is important to note that individuals who visit suicide or self-harm-related websites may have a heightened risk of performing such behaviour. However, there are also websites that provide helpful information for those in need. Furthermore, young people tend to use such websites in order to gain social support or self-identity. Researchers should take advantage of the accessibility to the Internet to provide helpful information while assisting in meeting the needs of young people at risk by developing new websites that are able to provide information and virtual assistance when needed. This may be helpful in preventing suicide among young people.

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Conflict of Interests

The author declared no conflict of interests.

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Emotional Intelligence and Self Esteem in Male and Female School Students

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ABSTRACT

The aim of the research is to investigate that emotional intelligence and self-esteem in male and female school students. The present research design is research cross sectional design. Sample contained 200 students (100 =male, 100= female) (mean age = 14.16, SD = 0.740) all belonging to the upper, middle and lower Socio economic status. Whole sample was collected from different schools of Karachi, Pakistan with the help of convenient sampling technique. First, the confidentiality about the participants demographic information was assured after that about the purpose and procedure of research explained to participants. The participants who given consent of participation in research, the demographic form, Urdu version of Rosenberg Self-Esteem Scale (Rosenberg, 1965), and Trait Emotional Intelligence Questionnaire (TEIQue) (K.V. Petrides) were administered on them. Statistical Analysis (t-Test for independent) applied to assess the difference of emotional intelligence and self esteem among male and female. The results reveals there is significant difference among emotional intelligence of male and female school students ($t(198) = 6.597, P < .05$) and there is also significant difference in self esteem of male and female school students ($t(198) = 2.837, P < .05$).

Keywords: *Emotional Intelligence, Self Esteem & Male and Female School Students*

Emotional intelligence refers as “An ability to recognize the meanings of emotions and their relationships, and to reason and problem-solve on the basis of them” (Mayer, Caruso & Salovey, 2000, page 267). Firstly, term Emotional intelligence described by Salovey and Mayer (1990) according to him emotional intelligence has three main adaptive abilities such as 1) appraisal and expression of emotions, 2) regulation of emotions and 3) utilization of emotions in problem solving. Here first two adoptive abilities individuals applies on own self and others and third is the proper usage of emotions in discovering, analyzing and sort-out the problems.

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Mayer, Caruso and Salovey,(2000) given the model of emotional intelligence which contained four components “reflectively regulating emotions, understanding emotions, assimilating emotion in thought and perceiving and expressing emotion”. Additional model of emotional intelligence contained various components such as Dulewicz and Higgs, (1999) given seven aspects of emotional intelligence that is self-awareness, emotional resilience, motivation, interpersonal sensitivity, influence, intuitiveness, and conscientiousness and integrity and Bar-On’s, (1997) stated that emotional intelligence comprises non-cognitive abilities. The Bar-On’s Emotional Quotient Inventory contained five aspects of emotional intelligence i.e. intra-personal, inter-personal, adaptability, stress management, and general mood with 15 sub-scales.

Daniel Goleman (1995 & 1998) has an important role in popularization of emotional intelligence. Emotional intelligence is an essential aspect in establishing one’s own success as a learner, teacher, executive and organizer.

Daniel Goleman model of emotional intelligence

SELF PERSONAL COMPETENCE		OTHER SOCIAL COMPETENCE
Recognition	Self-Awareness Awareness of own emotions Precise self-evaluation Confidence	Social Awareness Consideration Service knowledge Organizational Understanding
Regulation	Self-Management Control on self Reliable meticulousness Flexibility Achievement oriented Inventiveness	Relationship Management Growth of others Well communication Conflict resolving Management Change in medium Building closeness work with collaboration

Self esteem is define as individuals overall positive evaluation of self. It contained two aspects competence worth. (Gecas 1982; Rosenberg 1990; Rosenberg et al. 1995). Competence is known as how individuals consider themselves as competent and worth is known as how individuals see themselves as a valuable individual. (Gecas 1982; Gecas & Schwalbe 1983). Self-Esteem (trait) is generally, our feeling about or evaluation of us. State Self-Esteem is the way we feel about or evaluation ourselves at specific time. Self-Evaluations are how we feel about or evaluation of particular aspects of self for instance, appearance, intellect, socialization, etc.

Student’s self-esteem is generally affected during the school time. High and low, self esteem of students based on their experiences. High self-esteem associated with good academic career and successful life. It was found that individuals desire to preserve a higher level of self-esteem

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because they have a desire of feeling excellent about their selves. (Leary, 2011) It is said that high level of self esteem assists individuals in the accomplishment of goals. (Leary, 2011) High self esteem can assist individuals coping abilities and low self esteem can lead toward escape from problematic situation and high and low self esteem associated with student's way of goals attainment in daily living. Children learn to have higher level self esteem with adults encourage and support them at every their new attempt. Children with good self esteem have satisfaction with their life without any persistent need for appreciation (Egertson, 2006).

According to Schutte, et al. (2002) emotional intelligence linked with pleasant mood state and higher level of self esteem. Research was conducted on sample of adolescents; result revealed that higher level of perceived emotional intelligence positively associated with perception of self worth (Ciarrochi, Chan, & Bajgar, 2001). Fernández-Berrocal et al.(2006) found that mood clarity and affective repair strongly correlated with self esteem. Chester (2005) investigated the relationship of emotional intelligence and self esteem of students. He found that emotional intelligence closely related with self esteem, academic success and success in lives. High level of self esteem improved person sense of self worth then they behave in emotionally intelligent way and low self esteem lead toward unrealistic presentation of self and they emphasis on self evaluation their emotional abilities (Coetzee, 2005; Sosick & Megerian, 1999). Ciarrochi, Chan and Caputi (2000) reported that emotional intelligence positively correlated with self esteem. Emotionally intelligent people have high level of self esteem.

Bagley, Bolitho and Bertrand, (1997) done research on Canadian school children. He found that the self-esteem of male student higher than female school students. Booth & Gerard (2011) conducted number of researches in England and USA to examine the gender difference in adolescents. He found that male students have higher level of self esteem as compare to female students. Similarly, research carried out in Canadian high school students, result reflect that male student has significantly higher level of self esteem than female students. Farid, and Akhtar, (2013) conducted research on Pakistani children from Punjab Districts. He took sample of 396 students. Result reflects significant difference in self esteem of male and female school students.

Generally it is said that female have excellent emotional intelligence ability than male. Tapia (1999) and Dunn (2002) argued girls have higher level of emotional intelligence as compare to boys. Large number of empirical researches reported female are emotionally intelligent then male (King, 1999; Sutarso, 1999; Wing & Love, 2001 & Singh, 2002). Additionally, it was found also that women possess higher level of emotional intelligence than men (Day & Carroll, 2004 and Grewal & Salovey, 2005). However, Ahmad, A., Bangash, H., & Khan S.A, (2009) was conducted research in N.W.F.P. Pakistan with the sample of 160 participants (80 = male, 80 = female), result reflect significant difference in the emotional intelligence of male and female. Male has higher mean then female. Kaneez, (2006) done research on Emotional Intelligence

among the Individual with Depression and without Depression. With reference to gender she found that men have higher level of emotional intelligence as compare to women.

Rationale of the present research

The objective of this research is to examine the difference of emotional intelligence and self-esteem among male and female school students. Large numbers of researches were carried out in this regard in western and European culture and some researches were done in Pakistan. Present research conducted on school students in Karachi, Pakistan. Following hypothesis were formulated 1) there would be difference in the level of self esteem among male and female students 2) there would be difference in the level of emotional intelligence among male and female school students.

METHODOLOGY

Participants

The present research contained 200 school student (Male = 100, Female = 100) with age limit of 13 to 15years. Mean age is 14.16 and Standard Deviation is 0.740. Participant belong to various socioeconomic status (Lower = 10, Middle = 182 and U = 8). With reference to family structures, 65 participants belong to joint family structure and 135 participants belong to Nuclear family structure.

Measures

- 1. Personal information Sheet:** Personal information sheet of the participants was attained by gathering demographic information name age, gender, family system (nuclear / joint), education and socioeconomic status.
- 2. Rosenberg Self Esteem Scale:** This scale use to assess self esteem made by Rosenberg in 1965 the type of scale is Likert. The 10 items are answered on a four point scale ranging from strongly agree to strongly disagree. (Rosenberg, 1965) For the present study translated version of this scale in national language of Pakistan i.e. Urdu was utilized. The Reliability and validity coefficients of Rosenberg Self Esteem Scale varied form 0.61 and 0.87. The test retest reliability ranged from .82-.88. Cronbach's alpha range from .77 to .88.
- 3. Trait Emotional Intelligence Questionnaire (TEIQue-SF):** The Trait Emotional Intelligence Questionnaire-Adolescents Short Form (TEIQue-SF; Petrides & Furnham, 2003) is a simplified version in terms of wording and syntactic complexity of the adult short form of the TEIQue. The scales include 30 statements which were derived from the 15 subscales of the Adult Trait EI sampling domain (two items per subscale). Participants have to respond to on a seven point Likert Scale. Higher score on the TEIQue-SF indicate higher level of trait emotional intelligence. The sub categories of scoring of The Trait Emotional Intelligence Questionnaire-Adolescents Short Form (TEIQue-SF are interpersonal skills, interpersonal skills, adaptability, coping with stress and general mood.

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For the present study translated version of this scale in national language of Pakistan i.e. Urdu was utilized. Emotional Intelligence Questionnaire-Short Form (Shahzad, Riaz, Khanum & Begum, in press) was used. The adapted version of TEIQue-SF has good psychometric properties. The cronbach's alpha for Urdu version of TEIQue-SF is (0.889). Gutman split half coefficient is .862 and test retest reliability is .817.

Procedure

First of all permission of data gathering was taken from different schools of Karachi, Pakistan. When the researcher has taken consent of data collection from school administration then concise description about the nature and procedure of research were given to them. After that, subjects were approached individually and they were assured about confidentiality of their provided information. Then research forms personal information sheet, Rosenberg Self-Esteem Scale (Rosenberg, 1965), and Trait Emotional Intelligence Questionnaire (TEIQue) (K.V. Petrides) were administered on students. Scoring of only complete research forms were done and SPSS (version-18) were used for data analysis. Regression analysis was computed for finding the predictive relationship of emotional intelligence and self esteem. T- test for independent sample was used to find the difference of emotional intelligence and self esteem among male and female school students.

RESULTS

Table 1 Demographic characteristics of sample

Variables	Category	Frequency	Percentage
Gender	Male	100	50.0
	Female	100	50.0
Family status	Joint	65	32.5
	Nuclear	135	67.5
Socioeconomic Status	Lower	10	5.00
	Middle	182	91.0
	Upper	08	4.00
Age	Mean	14.16	
	Std. Deviation	.0740	

Table 2 Summary of comparison in the level of Emotional Intelligence in male and female school students

Variable	Groups	N	M	SD	t	df	Sig
Emotional Intelligence	Male	100	147.85	21.533	6.597	198	.000**
	Female	100	127.89	21.255			

Table 3 Summary of compression in the level of Self esteem in male and female school students.

Variable	Groups	N	M	SD	t	df	Sig
Self Esteem	Male	100	17.64	2.710	2.837	198	.005
	Female	100	16.71	1.844			

DISCUSSION

Result reflects that male students have higher level of emotional intelligence than female school students ($t(198) = 6.597, P < .05$). Bangash, H., & Khan S.A, (2009) reported consistent finding. According to Chu,(2002) male have higher level of emotional intelligence then female the reason is that emotional intelligence deal with management and expression of individuals emotions along with social skills. There is significant gender difference in emotional intelligence. It was found that men Assertive, Independent and have Impulse Control and stress management ability. Men can effectively recognize their emotions. This can be the reason of higher level of emotional intelligence in men. (Kaneez, 2006). Further, result depict that the significant difference in self-esteem of male and female school student ($t(198) = 2.837, P < .05$). Male school students have higher level of self-esteem than female school student does. Number of pervious researches reported male have higher level of self-esteem as compare to female (Bagley, Bolitho and Bertrand, 1997; Booth & Gerard 2011; Farid, and Akhtar, 2013).

Pakistan has several aspects of schooling systems that are comprehensive and developing. The secondary education in Pakistan is the period of career building. It split into different streams at higher secondary educational level. The objective of secondary is to get ready various careers. Sited in [http:// www.moe.gov.pk/ nepr/NEP_2009.PDF](http://www.moe.gov.pk/nepr/NEP_2009.PDF). Secondary level students are adolescent, psychological changes and puberty takes place. Students self esteem fluctuated and caused emotional reactions. In general, students self esteem based on their appearance and fame among their fellows (Ormrod, J.E., 1999).

Present research conducted to investigate the difference of emotional intelligence and self-esteem among male and female secondary school students in Karachi Pakistan. The purpose is to expend and clarify the concept of emotional intelligence and self-esteem among them. Hence, the gender difference in emotional intelligence and self-esteem glimpsed from early childhood because of different way of treating to boys and girls. In Pakistani culture individual difference for boys and girls exists, specifically parents are different with reference to children's gender. Pakistani society is the male dominant society where less importance given to women especially in rural areas. Maximum people are living in rural areas. Boys treated in a good way as compare to girls. Boys consider as dominating girls in the family. That greatly influenced the self-concept of boys and girls. Boys are more initiating and interacting with life than girls. At the beginning, boys have superiority over girls in family, due to this male dominant society transformed. This is the main reason that boys have higher level of self-esteem and emotional intelligence then girls.

CONCLUSION, IMPLICATIONS & RECOMMENDATIONS

It concluded that there is a significant difference in emotional intelligence of male and female school students. Male student has higher level of emotional intelligence as compare to female students. There is insignificant difference in the level of self-esteem of male and female school students. However, male mean is slightly higher than female. The study gives us insight about emotional intelligence, self-esteem and gender differences. This research has valuable implication for students for enhancing their self-esteem and emotional intelligence. It can be helpful for student's personality growth, socialization and improvement of academic performance. Furthermore, in future more research studies is recommended with large sample size should be gathered with probability random sampling that good for research generalization and representative of whole secondary school students of Karachi.

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Impact of Age and Educational Stream on Emotional Intelligence

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ABSTRACT

This study is aimed to explore the effects of age and educational stream on emotional intelligence. One hundred sixty subjects are drawn from Government Girls PG College of Excellence, Sagar. A 2X 2 factorial design was employed. Emotional Intelligence Scale (EIS) by Hyde et.al. has been administered to subjects. The ANOVA shows that the main effect of age (Junior: $X=127.81$ /Senior: $X=140.60$) reached on acceptable level of statistical significance [$F(1,156) = 44.07$, $p < 0.01$, and the main effect of Educational Stream (Science: $X=139.96$ /Arts: $X=128.45$) was also found significant difference [$F(1, 156) = 78.73$, $p > 0.01$]. The results revealed that senior subjects were found superior than on Emotional Intelligence junior subjects. It is also noteworthy that impact of science subjects was found positive on EI tests scores and studying science improves Emotional Intelligence. Implications and recommendations for developing emotional intelligence in students are discussed.

Keywords: *Emotional Intelligence, Educational stream*

Emotional intelligence was defined by Salovey and Mayer (1990) as ‘the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions’. The theory of emotional intelligence proposed by Salovey and Mayer (1990; Mayer & Salovey, 1997) provides a new framework to investigate social and emotional adaptation. It focuses on emotional skills that can be developed through learning and experience, and posits four central abilities: perceiving, using, understanding, and managing emotions. In order to facilitate research in this area, the authors have developed ability tests to assess these skills. The first test was called the MEIS (Multifactor Emotional Intelligence Test; Mayer, Caruso, & Salovey, 1995).

Salovey and Mayer (1990) also provided an initial empirical demonstration of how an aspect of emotional intelligence could be measured as a mental ability (Mayer, DiPaolo, & Salovey, 1990). In recent years, emotional intelligence (EI) has been a popular topic of debate in the field

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of management. It has been praised as a successful predictor of job performance and leadership ability.

Goleman (1996) says that Intelligence Quotient (IQ) accounts for only about 20 percent of a person's success in professional life. The rest, he says, can be attributed to Emotional Intelligence traits like self-awareness, social deftness, the ability to defer gratification, to be optimistic in the face of adversity, to channel strong emotion and to show empathy towards others. Of all these self-awareness is the most important 'emotional competency' (Singh, 2003).

There are many evidences about emotional intelligence and age. Popular literature and common sense assert that older people are more aware, wise, and restrained so higher on EI. Existing research indicates a positive relationship between emotional intelligence and age. Which areas of emotional intelligence are most affected by age? Are older people more self aware, better at self management, and/or do they make more principled decisions? This study finds that some parts of Emotional intelligence (EQ) do increase with age, though the effect is slight; in addition there are elements of EQ that do not increase with age indicating some competencies must be developed through training (Synder, et. al, 1995.; Roberts, Zeindner & Matthews, 2001).

It is being increasingly recognized the world over that with effective training the emotional intelligence can be increased.

Objective

The objective of the present study was to ascertain empirically whether ageing has increasing impact on Emotional Intelligence. Further, the aim was to ascertain impact of Science and Arts stream on Emotional Intelligence.

METHODOLOGY

Sample

Sample consisted of 160 Girls are drawn largely from Government Girls P G College of Excellence Sagar. The age range of the junior was range 17-18 and that of the seniors was 21-22. All subjects were drawn randomly from enrollment lists of admission.

Material

Emotional Intelligence Scales developed by Hyde, Pethe and Dhar is well known as EIS was found most suitable to meet the objectives of present study.

Procedure

One hundred sixty subjects are drawn from Government Girls PG College of Excellence in Sagar through random sampling and they are assigned into 4 sub-groups. After that consent of the

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subjects have been sought EIS by Hyde, Pethe and Dhar has been administered to all 160 subjects for data collection. The collection of data planned systematically.

RESULTS

Table 1: Mean EI test scores in relation to age and educational stream

Age/Educational Stream	Science	Arts	Total
Junior	131.35	124.27	127.81
Senior	148.58	132.63	140.60
Total	139.96	128.45	

DISCUSSION

Table 2: Showing 2×2 of Analysis of Variance for EI Test Scores

Source of variance	Sum of square	df	Mean square	F-ratio
Age (A)	573.81	1	573.81	44.07**
Educational Stream (B)	1025.16	1	1025.16	78.73**
AB	432.29	1	432.29	33.20
With in cell (error)	2031.26	156	13.020.86	
		159		

* Significant at 0.05 level ** Significant at 0.01 level

A 2×2 analysis of variance (ANOVA) was performed on the data obtained from the study. The table shows that the main effect of age (A) (Junior: $X=127.81$ /Senior: $X=140.60$) reached on acceptable level of statistical significant [$F(1,156) = 44.07$, $p < 0.01$], and The Hypothesis: Emotional intelligence is positively associated with increasing age is found true.

The main effect of Educational Stream (B) (Science: $X=139.96$ /Arts: $X=128.45$) was also found significant difference [$F(1, 156) = 78.73$, $p > 0.01$]. The second hypothesis: The science stream will have the positive effects on Emotional Intelligence test score than arts stream.

The results revealed that age remains positive effect on Emotional Intelligence it is also noteworthy that Studying of science is found responsible to improve EI.

The interaction of ageing \times Educational Stream is not found significance [$F(1,156) = 33.20$, $p > 0.01$].

This research may be of great importance to formulate training programs to enhance emotional sensitivity, emotional maturity and emotional competency as a key component of Emotional Intelligence in schools and work places. The results of the research also implicate that studying science in which logic and reasoning may contribute in enhancement of Emotional Intelligence.

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Relationship between Caretakers Variable on Education and Coping Strategies of Caretakers Attending to Patients with Cancer Problems

M. Sandhya Rani^{1*}, Dr. Nasreenbanu²

ABSTRACT

The present study makes an attempt to understand the Relationship between Caretaker Variable on Education and Coping Strategies of Caretakers Attending to Patients with Cancer Problems. Caretakers who were ready and willing to extend their cooperation for in-depth interview were selected as population for the study. Thus a total number of 80 caretakers were selected purposively for conducting the present study. The results revealed that caretakers used both approach and avoidance coping styles. Better the education, caretakers were used it for medical treatment and for providing medicines etc. for the sick patient.

Keywords: *Education, Caretakers, Coping Strategies, Cancer Problems*

Becoming a parent, is one of the most powerful of the human experiences, is often accompanied with feelings of celebration and relief, but it can also be a time of anxiety, and stress. The term “Parenting” is derived from the Latin root *pario*, meaning life-giver, and encompasses much more than just the care giving activities parents perform.

The health status of a child, including the onset of a chronic illness, is one of many factors that can contribute to the quality of child rearing (Kazak, 1989). When considering that up to 30% of children have a chronic health condition (Newacheck and Halfon, 1998), 11% of whom are living with conditions considered moderate to severe (Newacheck, Stoddard and McManus, 1993), a significant number of families are faced with an even more challenging future than they had anticipated. How parents respond to this situation can affect both the short- and long-term developmental outcomes for their children.

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Jemal *et al.* (2011) reported that in 2008, there were approximately 12.7 million cancer cases reported worldwide.

Hodgkinson *et al.* (2007) found that statistically the cancer rates are on the rise. Approximately 33% of males and 25% of females will get cancer before the age of 75.

Othman *et al.* (2011) found that Parents with higher cancer knowledge reported reduced stress ($p<0.01$) and anxiety ($p<0.05$). Highly educated parents engaged in more activities with their children ($p<0.05$). Parental anxiety was correlated significantly with children's current treatment including procedure ($p<0.01$), 'In-patient' Vs 'Outpatient' ($p<0.01$), and children's condition ($p<0.01$). Parents of hospitalized children who underwent chemotherapy were significantly more anxious than their counterparts. Parents who perceived their children's current condition as very good', reported reduced anxiety, compared to those who reported their child's condition as 'ok'. The more psychological problems the children had, the higher parental anxiety ($p<0.05$) and stress symptoms ($p<0.01$).

RESEARCH METHODOLOGY

A total number of 80 caretakers who were ready and willing to extend their cooperation for in depth interview were selected as population for the present study. The sample was limited to caretakers for two reasons. First much of the research on family care giving which has been done in abroad only this area of study is almost non- existent in the state of Telangana. Secondly, reports have suggested that parents are particularly vulnerable to the strains of illness experienced due to multiple roles to be shouldered. The main focus of the study was to provide various alternative strategies for the caretakers.

RESEARCH FINDINGS AND DISCUSSION

Research Findings and Discussion

Caretakers who were ready and willing to extend their cooperation for in depth study were selected as population for the study that is "Relationship between Caretakers Variable on Education and Coping Strategies of Caretakers Attending to Patients with Cancer Problems". Thus a total 80 caretakers were selected purposively for conducting the present study.

Description of the Cancer Problems

1. Cancer illness is the most acute pressure, which any family may experience and it also creates a potential threat equally to both the victim and the caretaker.
2. For the patient, the threat involves painful medical procedures, surgeries, and its side effects, and frequent hospitalization.

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Relationship between Caretakers Variable on Education and Coping Strategies

Approach coping		Avoidance coping	
Caretaker Variable: Education			
Logical Analysis	0.36**	Cognitive Avoidance	0.15
Positive Appraisal	0.29	Acceptance	0.32*
Guidance and Support	0.32**	Alternative Rewards	0.33**
Problem Solving	0.30*	Emotional Discharge	-0.49**

P*0.05; level of significance; P**0.01, level of significance, r tab value at 5% level of significance = 0.2500; r tab value at 1% level of significance is 0.3248.

The above table presents the relationship between caretaker variable on education and coping strategies of caretakers attending to children with cancer problems. Out of the eight coping responses, the first four represents Approach coping and the remaining four comes under Avoidance coping.

Under Approach coping, the first area is logical analysis, which deals with handling the situation objectively, finding some personal meaning to the situation and anticipating the new demands. In this area, the level of significance is 0.36** logical analysis in coping with the situation.

The second area under Approach coping is Positive appraisal, which includes caretaker's ability to see the good side of the situation and how the event could change one's life in a positive way. In this area, the level of significance is 0.29 positive appraisals in coping with the situation.

The third area under Approach coping is guidance and support, which involves seeking support from relations, talking to a closed person about the problem and praying for guidance and strength. In this area, the level of significance is 0.32** caretakers sought guidance and support.

The fourth area under Approach coping is problem solving, which involves a plan of action, using alternate ways of solving problem and trying out new ways of confronting the problem. In this area, the level of significance is 0.30* used to problem solving strategies.

Under Avoidance coping, the first area is cognitive avoidance i.e. avoiding the situation, denial, day dreaming, and imagining that problems would go away on their own. In this area, level of significance is 0.15 used cognitive avoidance.

The second area under avoidance coping is acceptance i.e., accepting the situation with all its intensity, realizing that one has no control over the problem and believing that outcome would be decided by fate. In this area, the level of significance is 0.32*.

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The third area under avoidance coping is seeking alternate rewards i.e., getting involved in new activities, making new friends and indulging in more recreational activities. In this area, the level of significance is 0.33**.

The fourth area under avoidance coping is emotional discharge, which involves yelling or shouting to let off steam, showing the frustration of role capacity on others and keeping away from people in general. In this area, the level of significance is -0.49**used avoidance coping emotional discharge technique.

CONCLUSION

The data collected with respect to relationship between caretaker variable on education and coping strategies of caretakers attending to patients with cancer problems revealed that caretakers used both approach and avoidance coping styles. It indicated that Education of the care taker has significant positive relationship with logical analysis and guidance seeking dimension of approach coping strategies. There was no significant relationship between education and positive appraisal, problem solving coping strategies. Education was found to have significant positive relationship with alternative rewards and significant negative relationship with emotional discharge of avoidance coping strategy. There was no significant relationship between education and problem solving, cognitive avoidance, resigned acceptance of coping strategies. Better the education, caretakers were used it for medical treatment and for providing medicines etc. for the sick child.

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Locus of Control: Influence of Internality, Externality- Others, Externality-Chance among Management Students

Shilpa H. Arakeri^{1*}, Bharathi V. Sunagar²

ABSTRACT

This paper examines the Locus of Control among management students. The study intends to compare male and female students on the dimensions of internal locus of control with external locus of control (others and chance). The data required was collected was based on Levenson's Locus of Control Inventory questionnaire with necessary modifications in the items made with respect to this study. The research on gender found that internality among females is more than male students. The ratio of internality when compared with externality-total (others + chance) was <1 among the students who have undergone the survey. The sample of the study included students of Management Studies. The findings of the study showed that the percentage of females influenced by externality-others is more than male students. The gender comparison of the influence of externality-chance showed that male students are more influenced by externality chance factors than the female students. The study did not support the past literature related to influence of internal and external factors among female students compared to male.

Keywords: *Locus of Control, Internality, Externality-others, Externality-chance*

Today is the day of competition, and in this era of tough changing world individuals and organizations need to change and adapt them to the new changing environment. If you have to survive, you have to stand different against the competitors. In our case, we discuss of students to have an upper hand in the changing world. In order to achieve this students need information, adaptations and a better learning environment which can have a considerable effect on the success of the student and also the institute. This is the era where institutions are struggling to ensure high quality outputs in terms of graduates being produced.

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In order to achieve this in the process of teaching and learning personality of student's played an important role. Educationalists have discussed that many factors influences the achievement of students. These factors can be either academic or non-academic. Dollinger, S. J. (2000). Students with higher internal locus of control believe that they control their own destiny like the more effort the more results. Gershaw D.A (1989). Students with higher external locus of control attribute their success or failure to luck or chance and teacher's bias or sometimes even God. Rotter, J. B (1954). People who consider themselves that they are able to control their outcomes are known to possess internal Locus of control, where as individuals who considers outcomes beyond their control possess external locus of control.

THEORETICAL BACKGROUND ON LOCUS OF CONTROL

Control is an easy but also an interesting and a thought provoking word. We can find two types of people, one category belongs to those who think that they can control everything around them and another category are those who think that the world around them controls them. Control can be defined as the power to determine outcomes by directly influencing actions, people and events. We have to understand or investigate about what we can control and what we cannot.

When we put a word "Locus" behind the word "Control", the things become more interesting. Locus as defined is a position, point or place, or more specifically, a location where something occurs. A person's locus of control relates to whether a person's locus is controlled internally or externally. The term Locus of control in general for many people refers to cross-situational beliefs about what determines whether or not they get reinforced in life.

Rotter, J. B (1954) has suggested in his studies that most of our behaviors are always controlled by rewards or either retributions and the actions were the lying causes of our actions. The influence of our behaviors and our perceptions leads to our actions. "A locus of control orientation is a belief about whether the outcomes of our actions are contingent on what we do (internal control orientation) or on events outside our personal control (external control orientation)," as explained by psychologist Philip in his book on *Psychology and Life* in 1985.

Rotter (1966) believed that individuals with a strong internal locus of control rely on the accountability for everything happening around them lies in how they get reinforced finally lies with their own self. This type of individuals alleged that their success or failure purely depend on the effort they induce. But on the other side people with higher external locus of control their success or failure is purely due to luck, or by others. Rotter (1966) has conducted studies extensively on problems with respect to peoples understanding of locus of control. According to him locus of control will predict the people's behavior in different situations. But he also believes that some people in some specific situations who are externals behave like internals. According to Rotter these people behave like this due to continuous reinforcement but still they

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perceive that they have very little control over what happens to them. We can observe that personality plays a main role between a person and environment.

INTERNAL AND EXTERNAL LOCUS OF CONTROL

As we understand that locus of control refers to the extent to which people feel how much they can control the actions happening in their lives. The query is whether you feel that you have control on the results or whether you believe that everything is out of your hands and that the things are completely dependent on external factors.

Internal Locus of control

People who possess higher internal locus of control People possessing high internal Locus of control assume that their own effort and dedication can control and bring changes around them. These individuals think that future is merely one's own responsibility and what they do implicates the success or failure. This belief actually makes them strongly confident and these are more motivated to get results. According to Rotter (1990) states Internal Locus of control as "The degree to which persons expect that reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics"

People with internal locus of control

1. These individuals take the accountability for their actions.
2. These people are very less affected by others thoughts.
3. These have a strong belief in their effectiveness.
4. They believe in hardworking and strive to achieve success.
5. Are confident, independent and aim in achieving greater success in the workplace.

External Locus of control

People having higher locus of control have always a belief in their mind that they don't have any control over what is happening around them and other people will control their actions and these people have to simply obey them. Rotter (1990) has described that external locus of control as "the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others, or is simply unpredictable." If you are person who believes in having limited or no control on what happens then he is supposed to blame external factors for it. This category of people are having higher external locus of control. These set of individuals are very much passive and always look at the things as they happen and they feel they can do very little about it. These people are more likely to attribute their success to luck and not their own efforts.

Individuals having external locus of control

1. Blame the situations and others for the difficulties being faced in their lives.
2. Always associate their success is the result of luck /chance or others.
3. Don't believe that they can change their status quo with their own efforts.
4. Are helpless in difficult circumstances.

REVIEW OF LITERATURE

According to Strauser, (2002) Locus of controls is one's belief in his or her abilities to control the things happening in their life. This belief reinforces the individual's life, be it success or failure. The success or failure of an individual may be the result of own attitudes or attributed to luck or chance Basm & Sesen (2006). (Rotter, 1966) clearly states people feel their control is dependent on chance are more controlled externally and people having their own individual's control on their life are more likely to be having a belief in internal control. Sometimes when the environmental factors are not enough to explain the failures or success of an individual, locus of control facilitates and makes the things more clear. Having to mention, we can find people can be controlled either by external or internal factors (Taylor, 2006).

The people who have high internal locus of control feel that they can influence the events that affect their lives. They evaluate themselves having possessed with high power for the attitude and would go with the positive ego concept. They believe that they can direct their life in whatever way they desire according to Gulveren (2008). The two different types of attitudes regarding the determination of outcomes and rewards are; few people say that they can neither guess nor influence important events, the other category of people believe that they can do both.

The term that was developed to discuss such issues is called as locus of control. Rotter (1954) developed this term and has subsequently done great amount of research on this topic. This topic deals with the perception of people about situations and their effect on outcomes. People with low perception of such situations tend to have internal locus of control. These people believe that the external locus of control is produced by their own actions. Such people believe that situations produce outcomes rather than their actions. Internality and externality are the terms respectively used for internal and external locus of control. Internals are the individuals with high internality and externals are the people having high externality. Internals are effective and are adjusting.

People with higher score on internality are more sensitive and have a keen observation compared to people with high externality. Internals are more inclined towards solving the situations of uncertainty (Lefcourt & Wine, 1969). Internals are more susceptible to purposeful and incidental learning (Wolk & Ducette, 1984). It is rational to associate people with higher internality with different aspects of learning like being eager to get information, very curious, being aware of situations and their circumstances. In view of controlling the outcomes people of internality need

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information and would like to process it as fast as possible. (Crandall and Crandall, 1983; Harrison, 1968; Lessing, 1969) studies show that people with higher internality are highly academic oriented and these people are also risk takers but calculated (McClelland, 1961).

Neill, J. (2006) says people with internality are sometimes psychologically weak and very much unstable. If internal locus of control is matched with self-efficacy and their capabilities then an individual can have strong control over the events. Students lacking in competency and self-efficacy normally become phobic, nervous and unhappy. But individuals with external Locus of control are easy going, relaxed and always happy. Ghasemzadeh and Saadat (2011) have concluded that female students locus of chance control have higher scores than male students. Internal locus of control in students tends to have a positive influence with fulfilling educational goals of the students.

In spite of these discussions in the field of psychology, students having more internal locus of control are goal oriented and they are likely to get a better job compared to others. The question is whether the belief in luck or chance leads to situation or whether a situation leads to the beliefs. Studies reveal that, Locus of control is responsive to situations to some extent. Few interventions in psychology and education have been showing swings in internal locus of control (Hans, 2000; Hattie, Marsh, Neil & Richards, 1997).

Some research works have stated that male students have higher internal locus of control and few other studies have been contradicting. Research has also revealed that people become internal as they grow older. However, we should not forget the fact that internality is not always good and externality is not always bad. During some situations it is good to have external locus of control when an individual's competence is not strong in a specific area. Research has been oriented towards locus of control where (Lefcourt, 1966; Rotter, 1966) studies highlight about the extent to which a person is having control over the events in their lives.

Studies have been conducted in this area but literature reveals that no such study is conducted on measuring the locus of control of management students. This study concentrates to analyses the locus of control of management students comparing the internality and externality by luck and externality by chance among the male and female students.

RESEARCH METHODOLOGY

The data for this study was sort from sample of 102 management students aged between 21-25 years from management department. The sampling technique adopted was convenient sampling and also care was taken to include both the genders and also in terms of academic achievers belonging to all levels (High, Medium, Low).

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The data collected was based on Levenson's Locus of Control Inventory questionnaire with necessary modifications in the items made with respect to this study. The questionnaire was given with the intention of obtaining the score of students on various factors like Internality (I), Externality- Others (E-O) and Externality- Chance (E-C). Then Externality- Others (E-O) and Externality- Chance (E-C) scores were added to obtain the Externality-Total (E-T) score. The questionnaire was distributed to the sample of the study to collect the responses. Simple descriptive statistical tools were used analysis the data. The possible gender differences and a comparison between internality, externality-others and externality-chance has been indicated in the study.

Objectives

1. To study the Locus of Control of management students.
2. To compare the locus of control of male students with female students
3. To indicate the influence of externality-others and externality-chance on the students
4. To determine the influence of internality or externality factors on the students.

FINDINGS

	Internality	Externality (Others+ Chance)	Equal	Total %
Male	27	68	5	100
Female	41	59	0	100

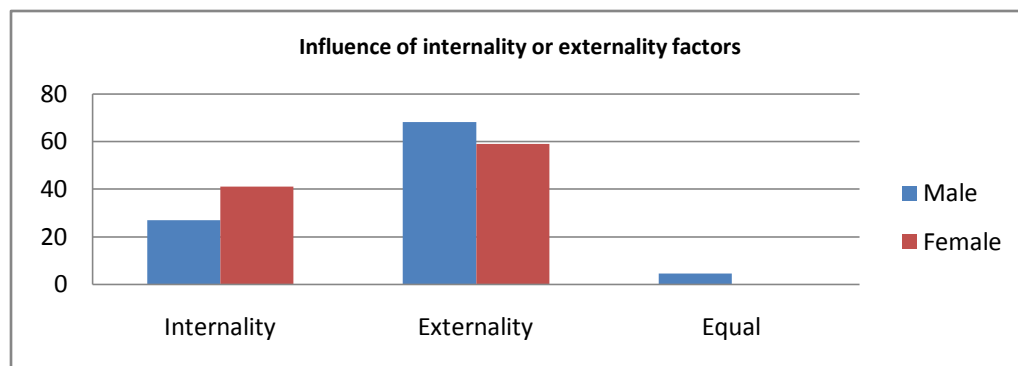


Table 1 & Graph 1: Locus of control of male students with female students

According to table 1 and graph , among 102 management student respondents, 68% of respondents feel that external factors including others and luck influence them more than internal factors related to self. 59% of female respondents are influence by external factors compared to 41% of females influence by internal factors. Very few percent of respondents say that both internal and external factors influence them equally. Based on the table 1 and graph 1, it is interpreted that, more percentage of females are influenced by internal factors than males. The

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influence of external factors is more among males than females. The externality factors include both influence by others and influence of the situation and luck.

	Externality-Others	Externality-Chance	Total %
Male	60	40	100
Female	67	33	100

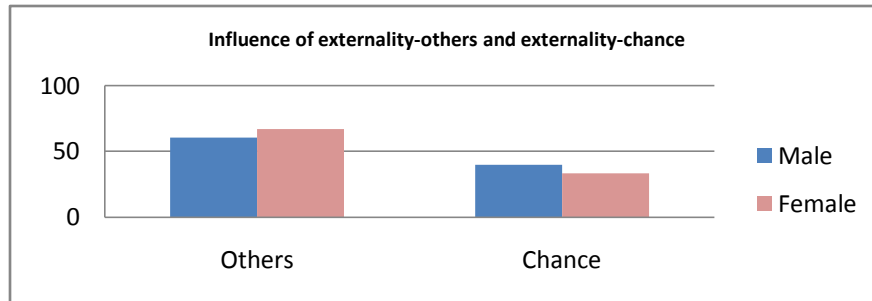


Table 2 & Graph 2: Influence of externality-others and externality-chance on the students

Based on table 2 and graph 2 it is interpreted that, the influence of other people like parents, teachers and other people who study with them is more among female respondents than male respondents. But compared to female more percentage of male has feel that situational and luck factors influence them more in their college and the activities related to college.

Interpretation of scores is done in terms of ratios, I/E-O, I/E-C and I/E-total. The ratios are more than one among 99 respondents out of 102 when internality is compared with externality-others.

	I/E-O	I/E-C	I/E-T
Ratio > 1	99	100	40
Ratio < 1	3	2	62

Table 3: Ratio of I/E-O, I/E-C and I/E-T

This shows that 99 respondents have more internality than externality-others. 100 respondents have more than one ratio when the internality is compared with externality-chance. This shows that almost all the respondents have more internality than externality-chance.

In case of internality compared with externality-total the number of respondents having ratio more than one is less i.e., 40 out of 102. These figures show that the externality-total i.e., influence of other powerful people like parents, teachers, friends, classmates, pressure groups and the influence of luck, chance, situation, opportunities, etc. is more than the influence of self.

	Internality	Externality Others	Externality Chance	Externality Total
Mean	33.765	20.657	18.627	39.284
SD	3.517	5.808	6.870	11.580

Table 4: Descriptive statistics of respondents

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Scoring	Internality (Influence of self)	Externality-Others (Influence of Parents, Teachers, friends, classmates, Pressure groups, etc)	Externality-Chance (Influence of Luck, chance, situation, opportunities)
0-16	Very little confidence in their efforts and will not utilize their potential.	Orientation of counter dependence.	Less belief in attributing the success or failure to luck, chance.
17-20	Lacks in self-trust, needs to examine his or her strengths by using feedback from others.	Independence Orientation.	Opportunistic, will try attitude.
21-29	Positive will do attitude, and believes in one's own self efficacy.	Realistic Dependence.	Does not recognize one's own ability. Puts effort but when fails blames on situation.
30 and above	High Internality, High Self Confidence.	Significantly dependent on others in achieving goal.	Very less confidence on themselves and always blame the surrounding for the outcomes.

Table 5: Locus of control Continuum

Locus of Control	Internality		Externality-Others		Externality-Chance	
Scoring	M	F	M	F	M	F
0-16	0	0	15	11	22	19
17-20	0	0	17	7	20	7
21-29	6	4	25	20	16	10
30 and above	57	35	6	1	5	3

Table 5: Scores of students on Locus of control Continuum

CONCLUSION

Future research can be carried out to examine the relationship between loci of control with academic performance of the students. A gender comparison study will also reveal how locus of control will influence both male and female students to achieve their academic goals. Present research was carried out to analyze the locus of control of management students and compare them across genders. The results show that female students are more influenced by internal factors than male students.

Acknowledgments

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Family Involvement in Child Education and the Family-School Relationship in Romania

Costică Lupu^{1*}

ABSTRACT

The two fields, science and research, are in a relationship of mutual conditioning, meaning that there can be no science without research and no research can be conducted outside the normative framework of science. In the current context, these links appear to be more necessary than ever. Indeed, the social mission of the school increasingly surpasses the mere achievement of the pedagogical objectives from the school curriculum, given also the fact that many parents are too concerned with family, social or professional problems in order to be able to attend to their child's progress or the consistency between the education that the child receives and the education received by the child in the family and at school. To this end, we conducted an experimental research aiming to optimize the study of concrete possibilities for improving the school-family communication and the consequences entailed by this optimization. The main purpose of this questionnaire was to identify the students' opinion about the school's involvement of the family in their education and the consequences of a more aggressive involvement of parents in their children's education. The research subjects are students in the 12th grade, the Profile Services, the domain of Tourism and food, and their parents. The team of this class consists of 92 students, 44 girls and 48 boys from different backgrounds, with socially and financially vulnerable, 36 of them from urban areas and the remaining 56 families from rural areas. Based on the fact that during the school year, from the first meeting with the parents and until the present moment I have managed to build and develop a partnership relationship between the parents of the students in my class and the school, represented by the unit management, teachers and myself as head teacher of the respective class, I believe that the strategies (methods and techniques) used were effective and gave the expected result. This relationship should be further maintained and developed in order to achieve the results that we want in our work as educators. The conclusion we should draw is that cooperation between school and family means an agreement where each partner should respond to the other's needs and intentions. In order for

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this to be possible, parents should contact the school not only when they are summoned to meetings with parents or when children are faced with certain difficulties.

Keywords: *Pedagogical Research, Family Involvement, Child Education, Involving School, Family-School Relationship*

The particular complexity of the educational phenomenon, its multidimensional and multi-determined character, the infinity of the variables subsumed and the diversity of aspects of this phenomenon render research in this domain absolutely necessary.

Pedagogical research is a critical, dynamic and continuous process of knowledge, where systematic questions are formulated regarding the components and variables of the educational phenomenon, as answers to these questions are sought.

Any attempt to characterize pedagogical research should take as its starting point the object of study and research, namely the educational phenomenon, which, as already mentioned, is multidimensional and multidetermined. The nature, complexity and scale of this phenomenon lent some specific features and notes to pedagogical research, compared with research conducted in other fields of knowledge.

Pedagogical research implies sets of systematic and complex approaches, designed, planned, organized, coordinated and evaluated according to an algorithmic ranking. Research design is not a mechanical process of collecting data, interpreting, processing and evaluating them, but a dynamic process characterized by the researcher's feelings of uncertainty, questions, struggles and searches for a solution to a problem, feelings which give it a problematic character.

The set of steps involved is not rigid, but flexible, supple, adaptive, making it possible to change the research methodology during its performance. Thus, the call to the researcher's creativity, to his potential to adjust to the concrete situation, his critical attitude at all stages of the research is imperatively necessary.

The researcher is faced with situations in which he is forced to conceptualize an idea, raise new questions, revise certain models of organizing the research, collect other types of data, in addition to those initially established etc. Therefore, pedagogical research is a dynamic and creative process of knowledge, which involves intuition, imagination, creativity, critical attitude and takes place within a well-established scientific investigation framework.

Pedagogic scientific research methods and procedures are part of scientific research methods and procedures, as they aim to discover new truths, in particular, to study the educational

phenomenon. It is appropriate to mention here that there are methods of research in the sphere of general methodology, which are used by most sciences - for example, observation and experiment (adapted to the specificity of the respective research domain) and research methods belonging to the sphere of particular methodology, characteristic of a science or group of sciences - methods such as: the method of analysing curricular and other school documents, which is characteristic of pedagogical research.

Just as with educational activities, in scientific research, the research methods and techniques are not used in isolation but integrated into sets of investigative techniques and, more specifically, methodological systems in which they interact, complement each other, are mutually supportive and act convergently.

The system of pedagogical research methods represents the set of the methods and procedures used in the scientific research of the educational phenomenon and comprise operational tools for the knowledge and deep understanding of the educational process, and for the discovery of new truths.

The pedagogical research methodology represents the theory and practice of pedagogical research methods and procedures, the science that studies the essence, nature, definition, status, classification and requirements to exploit them and build explanatory methods. Knowledge of this methodology is absolutely necessary in order to be able to apply the most effective methods and procedures to various particular cases of pedagogical research, as well as find the best methods to customize and combine them.

Classification criteria for pedagogical research

According to the essence and objectives of the research

1. *Fundamental-theoretical research* - which opens new perspectives upon the educational phenomenon;
2. *Practical-applicative research* - addressing a restricted issue and aiming to improve the explored domain - for example: assessing school performance and enriching concrete ways of action;
3. *Development or operational research* - aimed at implementing the results of any type of research. This is of great importance because it introduces innovations in education and constitutes the source of new hypotheses.

According to the performed function

1. *Observant research* - pursuing knowledge and rigorous description of certain situations;
2. *Improvement research* - which aim to verify the effectiveness of certain interventions;

According to the work methodology

1. *Observational (non-experimental) research* – conclusions are more theoretical, the research is descriptive, ranging from the particular to the general;
2. *Experimental research* - lead to the discovery of causal relationships between educational action items. The researched phenomena are quantified and then generalized. In these types of research there is no clear-cut demarcation; they interfere and complement each other.

THE STAGES OF PEDAGOGICAL RESEARCH

Pedagogical research was designed as a systematic approach covering several stages:

1. *Identifying and formulating the research question implies*: seizing a research problem for which there is still no appropriate application. This problem may occur spontaneously from the observation of facts or may be raised intentionally. In any case, it should be quite restricted in order to be understood in its entirety and expressed as clearly as possible. It should not be a pseudo-problem; adequate and accurate formulation of the investigated problem, otherwise the research is at risk of wandering off the path and exhausting itself;
2. *Documentation* outlining objectives - is achieved simultaneously with determining (choosing) the theme and defining objectives, namely: why is research undertaken? What are the aims of the research?
3. *Building the analysis model*: performing the transition from theory (expressed as concepts) to the concrete reality as an object of scientific analysis within a new stage of its development; formulating the objectives and research hypotheses - the objective is formulated in a more general form by taking into account all the variables to be analysed. The hypothesis is a “provisional idea” about a fact, a social, pedagogical phenomenon, etc. specification and operationalization of variables – the factor with which the experimenter operates is the manipulated independent variable and the changes that have occurred and that are to be measured and explained constitute the dependent variable.
4. *Sampling*: it should meet statistical requirements of representativeness, homogeneity, sample size increased rigor.
5. *Application of data collection methods and techniques*: the researcher should have the competence and ability required for correct use of tools in gathering data relevant to the research conducted.
6. *Processing and interpretation of data*: This implies operations of analysis, synthesis, comparison, abstraction, generalization, (inductive, deductive) reasoning, and methodological competence.

The ultimate objective of the pedagogical research is to improve pedagogical action, which - directly or indirectly – is related to school performance. This is also the reason for which the pedagogical investigation is exercised on some objective facts that exist outside of us.

Pedagogical research is not insight, but a deep search for new ways to conduct education by scientifically explaining educational activities carried out at a given moment and – at the same time - to improve the educational process by proposing education innovation.

PEDAGOGICAL RESEARCH

Identification and formulation of the research questions

In a society where profound changes occur at a fast pace, under the circumstances of prolonged and painful transition, a representative number of the Romanian population is in a situation of dependence on the state and its institutions.

In the context of major transformations in all areas, from the economic, social, political, to the cultural and ideological, a part of the population is seeking solutions for survival or improving the family living conditions. Thus, the economic factor becomes absolutely essential to overcoming, first and foremost, material difficulties.

Determined by this reality, many parents have gone to work abroad, others have taken a second job to increase family income and a large number of them remained unemployed, on the verge of poverty.

Concerned with these issues and many others, parents have forgotten about their parental duties towards their children such as watching them and getting actively involved in their school and extracurricular activities.

Other parents have demanding jobs that take most of their day and, reaching home tired and very late, are no longer able to take care of their children. Due to lack of attention and supervision from parents, some children begin to neglect homework and school, miss classes and no longer get involved in the educational process, their school performance diminishing as a result.

School and family are the two supporting pillars of education, and between these and the extra-school or extra-family environment the child vacillates as an object and subject of education. The school-family collaboration should obviously focus on the quality of education: higher goals, ways and means.

In the current context, these links appear to be more necessary than ever. Indeed, the social mission of the school increasingly surpasses the mere achievement of the pedagogical objectives from the school curriculum, given also the fact that many parents are too concerned with family, social or professional problems in order to be able to attend to their child's progress or the consistency between the education that the child receives and the education received by the child in the family and at school.

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To this end, we conducted an experimental research aiming to optimize the study of concrete possibilities for improving the school-family communication and the consequences entailed by this optimization.

Building the analysis model

School-family partnerships do not produce successful students. Rather partnership activities that involve teachers, parents and students engage, guide, energize and motivate students so that they achieve success by themselves. The basic idea is that groups invest in schooling children by providing them with resources and motivational frameworks to support them in choosing successful strategies. Social exchanges through a good structure of programs may produce the human and social capital that we want as a result of school-family partnerships.

Today's everyday reality of families is different from that of previous generations. Parents and children spend far less time together and nearly all adults are faced with a constant desire to balance the demands of family life with those of their jobs. At a time when parents are under fantastic pressure that makes them less able to participate in their children's lives, there is an even greater need to get involved, especially in education.

Research objectives

1. Identifying the dimensions of families' understanding of the need for communication with the school.
2. The parents' awareness of the need to get involved in the educational process of their children.
3. Establishing a real school-family partnership to increase the children's self-confidence.

Specific objectives

1. Knowing the views of parents on child education in schools and the involvement of the school in the development of the family-school relationship.
2. Knowing students' opinions on family involvement in their education.
3. Knowing students' opinions on the school's getting the family involved in education.
4. Tracking the consistency of views expressed by parents and students on the family-school relationship.
5. Elaborating, on the basis of the findings, a concrete programme for a better family-school collaboration.

The working hypotheses

The interest of parents towards school and the education that their children receive is also manifested in the child's interest in school and his/her own education.

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If the school is not effective in working with the family, then the student takes advantage of the negligence of the school and how the school is appreciated differs according to it.

Variables

Dependent: family involvement in the child's education; - a closer monitoring of the child; - relating the behaviour to the other children from the school group; - knowing the position of the child within the group to which he belongs.

Independent: involvement of the school in the family-school relationship; - knowledge of a child's family situation; understanding the child's needs and behaviour; efficient communication between the two parts: parents and school; - appreciation of the student's needs; - accepting and respecting the child's position towards the community or group to which he belongs; - recognition of the system of rules and demands of the family to which the child belongs and based on which he/she will be further evaluated; - knowledge of the community to which the child belongs; - appreciation and evaluation from the members of the community to which he belongs.

Experimental sample

The research subjects are students in the 12th grade, the Profile Services, the domain of Tourism and food, and their parents.

The team of this class consists of 92 students, 44 girls and 48 boys from different backgrounds, with socially and financially vulnerable, 36 of them from urban areas and the remaining 56 families from rural areas.

Research data collection methods and techniques

The method we have used in the first stage of our research was the observation of the students in the classroom in terms of their behaviour, involvement in school and extracurricular activities, how they socialize within the group of students and at school. After that, I undertook conversation with the students in the class regarding their relationship with their parents, the degree to which their parents guide and support them in school and extracurricular activities. This method was subsequently extended to parents and the teachers who teach at that class.

At the meeting with the parents from the first semester of this school year, I used the same method on students and their parents, i.e. the questionnaire-based inquiry, with questions on the family-school relationship, how they appreciate this relationship, if it actually exists and if they think that the school provides good studying conditions and gets sufficiently involved in building and maintaining a real family-school relationship.

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Another method used in this research was the study of documents, from which we could collect data on the knowledge gained by children from different disciplines.

Throughout the 1st and 2nd semester (until the next meeting with the parents) we monitored the involvement of parents in their children's school activities and extracurricular activities, we asked them to respond to certain requirements of the school and of the children, trying to get them more actively involved in school activities. At the same time, we tried to respond as best and fast as possible to the requests of parents who have shown an interest in the school and behaviour situation of their children.

There was also monitored the behaviour of children whose parents had contacted the school, inquiring into their learning performance and behaviour, in comparison with the attitudes and behaviour of students whose parents had not responded to the requests of the school or school master.

Statistical processing and interpretation of the data from the questionnaire for students

The main purpose of this questionnaire was to identify the students' opinion about the school's involvement of the family in their education and the consequences of a more aggressive involvement of parents in their children's education.

The sample group consisted of 92 students in the class for whom I am the head teacher and the students' parents, belonging to different social classes and backgrounds.

A set of questions aimed at revealing the current circumstances of family-school collaboration. The students' answers revealed that at present there is no close cooperation between parents and schools, which generates a superficial attitude towards the educational system. Over 75% of those surveyed concluded that good, efficient and regular involvement and informing of parents about their children's school situation and behaviour would diminish behavioural problems and enhance a more active involvement in the learning process.

To the question: How often are you asked by a family member about what happened at school?, the students answered: daily - 13.05%; twice a week - 21.74%; during the weekend - 34.78%; once a month - 26.08%; never - 4.35%.

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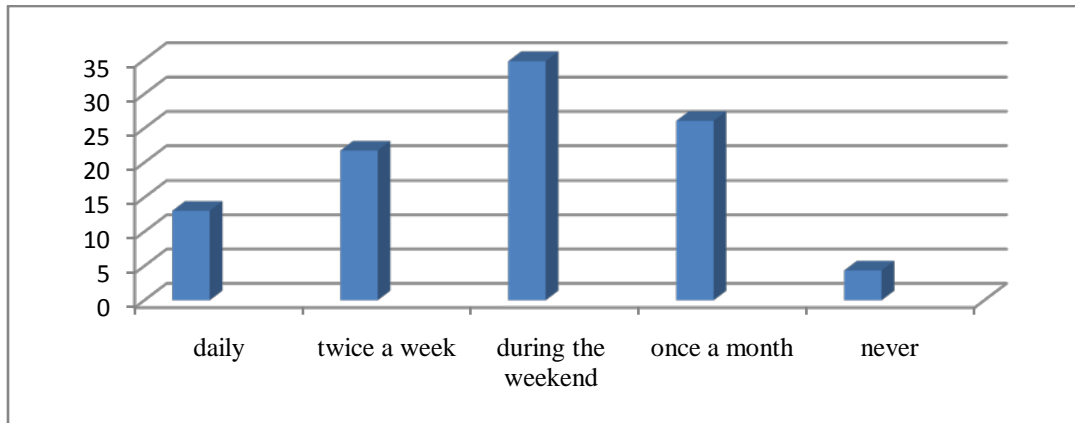


Chart 1. How often are you asked by a family member about what happened at school

As shown in these charts, family involvement in children's education is, at present, low. The reasons for the situation are various and more or less justified. The following graphs will clearly show the students' input on changing their behaviour in the case of a better collaboration between family and school.

To the question: Do you believe that school notifications to parents about your school situation would reduce the risk of certain problems?, the students answered by: "yes"- 73.92%; "no" - 21.73%; "I do not know" - 4.35%.

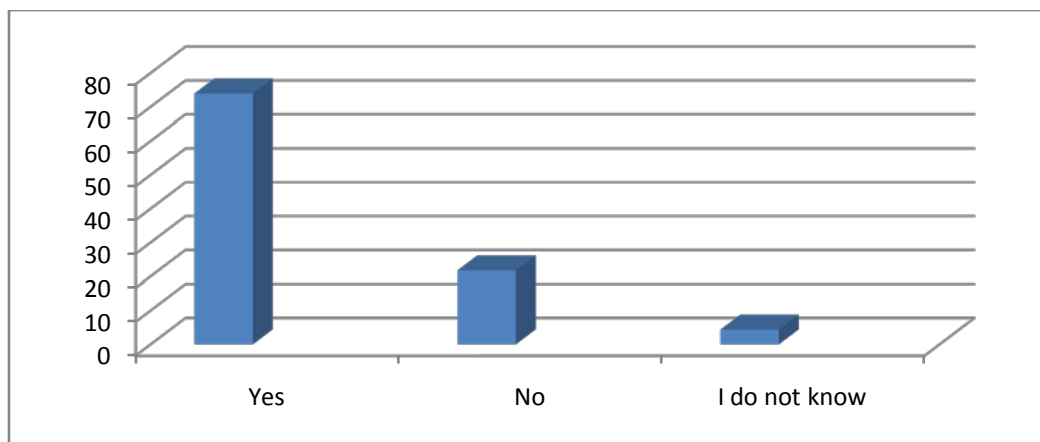


Chart 2. Do you believe that school notifications to parents about your school situation would reduce the risk of certain problems

Statistical processing and interpretation of the data from the questionnaire for parents

The main purpose of this questionnaire was to get input from parents on how their cooperation and involvement in their children's learning activities and their view of an educational partnership between family and school.

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The parents' questionnaire highlights the parents' interest in school, most often when they are notified, through various methods by the head teacher, about the child's school situation or behaviour deviations.

To the question: When do you go to your child's school to inquire about his/her school situation or other situations related to him/her?, the answer options were:

a – when you're invited, b – when you have certain complaints / grievances, c – on the occasion of voluntary participation in school projects, d – daily, via the Internet, e – other, parents are asked to mention other situations.

From the parents who completed the questionnaire, 73.68% responded that they go to school when notified / invited, 21.06% of them go to the school where their children learn when they have complaints or certain grievances, and a percentage of 5.26% go to their children's school for voluntary participation in various school projects. The option to access the computer to connect with the school was not ticked by any parent. For the option "other situations", some parents revealed that they sometimes learn news about their own children from their children's classmates or the classmates' parents.

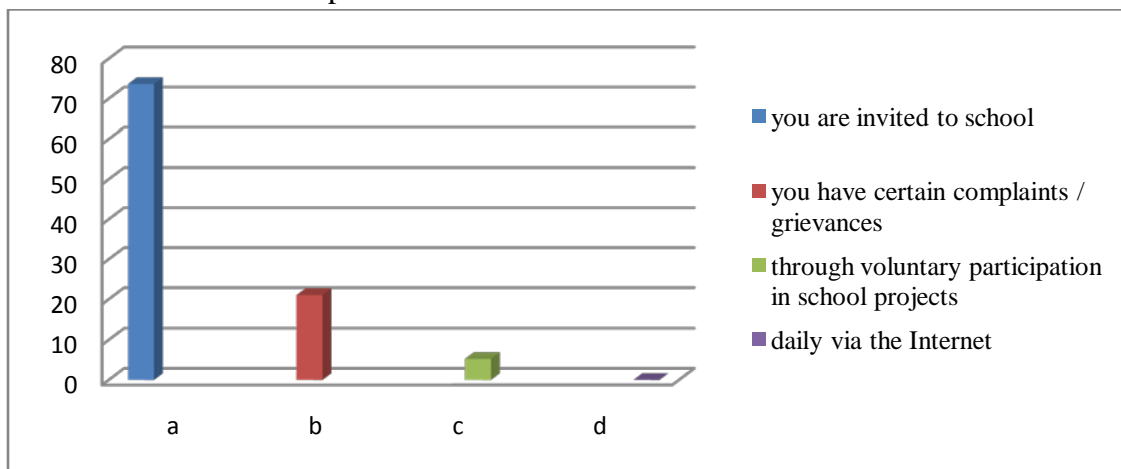


Chart 3. *When do you go to your child's school to inquire about his/her school situation or other situations related to him/her*

DISCUSSIONS AND CONCLUSIONS

Processing the statistical-experimental and material data highlighted an increased level of the interest of parents, and of the family in general, towards school and the needs of their own children, revealing a bond that should constantly exist between these two institutions: family and school.

As children experience a greater involvement of the family in their school and extracurricular activities, the existence of a connection between families and schools, they give more importance to the educational process and school attendance.

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If at the meeting from the 1st semester parents did not show much interest in school and the educational act of their children, during the 2nd semester there was an increase in the degree of their involvement in school life, in the formative training of their children and the school activities organized for the benefit of the school and students.

An important role in building and developing a genuine connection between family and school was played by the strategies and methods used by the head of school, the teaching staff and myself, as a head teacher, to attract and engage families in shared activities, ask for support in the development and implementation of educational projects, find volunteers for activities conducted with the students at class or school level.

Based on the fact that during the school year, from the first meeting with the parents and until the present moment I have managed to build and develop a partnership relationship between the parents of the students in my class and the school, represented by the unit management, teachers and myself as head teacher of the respective class, I believe that the strategies (methods and techniques) used were effective and gave the expected result. This relationship should be further maintained and developed in order to achieve the results that we want in our work as educators.

During this research we came across positive attitudes from subjects, such as: commitment, adaptation, acceptance, satisfaction, understanding, conformism, but there were also negative attitudes, such as: insubordination, absenteeism, rejection, antipathy, non-communication, isolation.

The conclusion we should draw is that cooperation between school and family means an agreement where each partner should respond to the other's needs and intentions. In order for this to be possible, parents should contact the school not only when they are summoned to meetings with parents or when children are faced with certain difficulties.

Parents should attend all the school's important events that involve their children (festivities, contests, performances, celebrations, etc.), support the school at least by their vote of trust if not also materially, facilitate the school's educational mission by continuing education at home, show willingness to participate in educational courses conducted by the school for parents, etc.

Involving parents in the school education of children relies on several principles, the breaching of which renders this relationship flawed and ineffective. Here are some of these principles: - parents want the best for their children; - regardless of ethnicity, socioeconomic status or educational training, parents are a key element in the education of their children; - all children are able to learn; - the main element is the child and his/her successes; - the school is not the only one responsible for the child's school performance; - every teacher is a specialist in his/her domain, providing children with information that is relevant and age appropriate; - together as

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partners: the school, family and community may succeed in educating children for a happy, healthy and productive life. As partners in a relationship, it is natural that both school and family should have certain mutual demands.

Teachers expect of parents to: - be involved in all the aspects of their children's life (provide them with favourable physical and mental development conditions); - create learning opportunities for their children (ensure a safe, peaceful environment that fosters learning); - highlight, in their discussions with children, the importance of life-long learning; - support students to achieve balance between school and extra-school activities; - support the school's goals, rules and policy; - communicate often and openly with teachers (without offending or criticising the latter's professional competence); - teach their children self-discipline and respect towards others; - teach their children how to say "no" to the pressures of their entourage;

Accept their responsibilities of parent by being a good example; - last but not least, encourage their children to be the best and set realistic goals.

Parents, too, have certain expectations of teachers regarding the teaching activity, namely: - to support children in enhancing their self-esteem; - to be sensitive to the special needs, interests and talents of children; - to communicate often and openly with parents; - to set identical school tasks for all students; - to show enthusiasm in educating children; - to treat all children equally; - to consolidate the children's positive discipline; - to provide information on how parents may help their children learn.

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Analysis of the Role of Parent's Lifestyle by the Authoritative Parenting Style in Girls of Grade Three of High School in Zahedan: A Cross Sectional Study

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ABSTRACT

Background: Every family applies a certain educational style in individual and social education of their children. These styles are influenced by many factors, including cultural, social, political, economic styles, etc. The parents' lifestyle is one of styles that have a great impact on parenting. In this regard, the goal of present research is analysis of the role of parent's lifestyle by the authoritative parenting style. **Methods:** The research method is descriptive-analytic based on library, documentary and field studies. Statistical Society of the research is all intelligent girls of grade three in high school of Zahedan during 2015-2016 school years. Cochran formula has been used to determine the sample volume which 311 people were estimated. Spearman statistical methods and multiple regressions have been used to analyze the data. **Results:** The results of the research show that the lifestyle and its components have a significant correlation with authoritative parenting style and can predict it. **Conclusion:** The findings of this study, while having applicable aspects in this domain, can be helpful in planning supplementary remedial procedures.

Keywords: *Lifestyle of Parents, Authoritative Parenting Style, Girls, Intelligent*

The family provides the most important social space for human growth. A series of cognitive, emotional and social changes are observed during the normal growth of each child. Children's behavior reflects the complex interpersonal conditions of family members, especially parents. So the existence of children's behavioral problems means as defective relationships of family members with one another and it is related to false educational methods of parents and their defective interactions with children (Hartas, 2014).

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There are methods which parents apply to train children and reflects the attitudes they have towards their children and includes criteria that impose for their children, these methods are called parenting methods. Diana Bamrind (1987 quoting from Burke, 2013) in a series of investigations by monitoring parents who interact with their preschool children, has gathered some data about parenting methods and was able to introduce three types of parenting styles (authoritative, authoritarian, permissive). Parenting style of parents will reliably predict many children's actions during life. Children of parents with authoritative parenting style will be trained well; they are cheerful (Berk, 2013).

Compared with children of authoritative parents, children of authoritarian parents will be placed in the lower level in establishing relationships with peers and having an active position and the independence vote. The children are also described as angry, isolated, sad and vulnerable to pressure (stress) and cautious persons (Redrgiz and Marsenko, 2014). Considering the sustainable importance of Parenting Styles, the researcher is trying to identify the factors associated with parenting to provide the field for its more precise control. Behaviors and reactions that parents reveal in front of their family and social situations are influenced by kind of thinking and their understanding of the issues that are important to them in life.

Hossaini Nasab (2005) in a research entitled “Investigation of the relationship between parenting styles and self-efficacy and mental health of high school students in the city of Mahabad” showed that there is a significant correlation between self-efficacy of students whose parents have different parenting styles and mental health's of students who have experienced different parenting styles are significantly different.

Dabiri et al (2012) have reported the relationship between parenting styles and happiness of children through mediator variable of personality traits. Accordingly, the authoritative parenting style is associated with happiness through extraversion positive impact. The authoritative parenting style is also associated with happiness through the negative impact of neuroticism.

Ahangar Enzabi (2010) in a research entitled “The relationship between parenting styles and adolescents aggression in city of Shabostar” shows that there was no correlation between permissive parenting style and aggression, verbal aggression, hostility, anger and physical aggression. The democratic parenting style had a direct relation with aggression and verbal aggression and a reverse relation with physical aggression, hostility and anger.

Yaqubi Dost and Anayat (2014) studied the relationship between parenting styles and violence in the family. According to the results of this study, there is violence and aggression in families with permissive parenting style but the damage caused by violence is much more in authoritarian parenting style. Aggression in families with permissive parenting style is caused by the

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destruction of the child's emotional relationships with parents and impulsivity and lack of restraint from children is often led to creation of an aggressive atmosphere. In authoritarian parenting style, violence, threats and intimidation are from parents.

Esmaeil pour and Jamil (2014) have investigated perception of parenting styles by children and the level of their anxiety. According to this research, the high acceptance of parents' perception had a negative correlation with anxiety in children and the excessive control of parents' perception had a positive correlation with anxiety in children. So, the children's understanding of parenting methods plays an important role in children's anxiety. It was suggested in this research that a suitable field must be provided for proper parenting for parents for reducing anxiety in children and its destructive effects.

Parenting styles have considerable impacts on the incidence of children's behavioral disorders and it can be even a predictor of psychosocial development, academic performance, health and welfare and behavioral problems of children in the future.

According to the results of mentioned researches, the present research will study the effective factors on parenting and in this regard, the role of the quality of life will be studied.

METHODOLOGY

The research method is descriptive-analytic based on library, documentary and field studies. All intelligent girls' parents of grade three in high school of Zahedan during 20015-2016 school year.

The estimation of the size of sample

Cochran formula has been used to determine the sample volume.

$$n = \frac{z_{\alpha/2}^2 . s^2}{d^2}$$
$$n = \frac{(3.84)(20.25)}{0.25} = 311$$

Ethical Principles

In this study, the informed consent was obtained without coercion, threat, enticement and seduction and their decision to refuse or accept to participate in the study were respected.

RESULTS

The relation between lifestyle and authoritative parenting style

For investigating the relation between lifestyle and authoritative parenting style, (PAQ) parental Authority Questionnaire has been used which is made by John R. Buri (1991) and it used to

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evaluate parental authority and it is formed of 30 item and 3 subscales of permissive style (10 questions) and parents of logical authoritative styles (10 questions). The parents' forms are same except appropriate indication to the word of father or mother.

The questionnaire scoring is as Likert's spectrum 5-point that scores of 1, 2, 3, 4 and 5 have been considered for options of "strongly disagree", "disagree," "indifferent", "agree" and "strongly agree" respectively. Ten questions have been proposed for investigating the relation between lifestyle and authoritative parenting style. The questions were reflected in questionnaires and they were distributed among study subjects who were 311 of intelligent students' parents of Zahedan and they were selected by using cluster random sampling.

The obtained results have been analyzed in two parts. In first step, using SPSS software, the averages of answers to the question have been investigated and in the second step, the hypothesis has been tested by using the same software. In the following, all proposed steps have been studied.

Table 1: Comparison of respondents' answers to questions

Questions	Average	The sample population
While I was growing up my mother felt at home, kids will go the same way whose parents have gone?	4.10	311
My mother always felt that what children need is to be free to think and do what they want to do, even if it does not match to what they want?	4.20	311
While I was growing up, my mother did not feel that I need to follow the rules and regulations, just because they have been imposed by an authoritative person.	4.33	311
While I was growing up, my mother rarely set expectations and rules for my behavior and rules and she rarely guided me?	4.13	311
By the time I was growing, my mother often did things that kids wanted?	4.00	311
My mother feels that if parents do no limit the activities, decisions and aspirations of their children during growth, social problems will be solved?	4.24	311
While I was growing up, My mother allowed me to decide further of my related tasks without her supervision?	4.35	311
While I was growing up, my mother didn't know herself responsible for guiding my behavior?	4.09	311
While I was growing up my mother allowed me to look at the family's issues from my perspective and in general she allowed me to decide myself what I wanted to do?	4.11	311
While I was growing up my mother did not control behaviors and activities and aspirations of children in the family?	3.99	311

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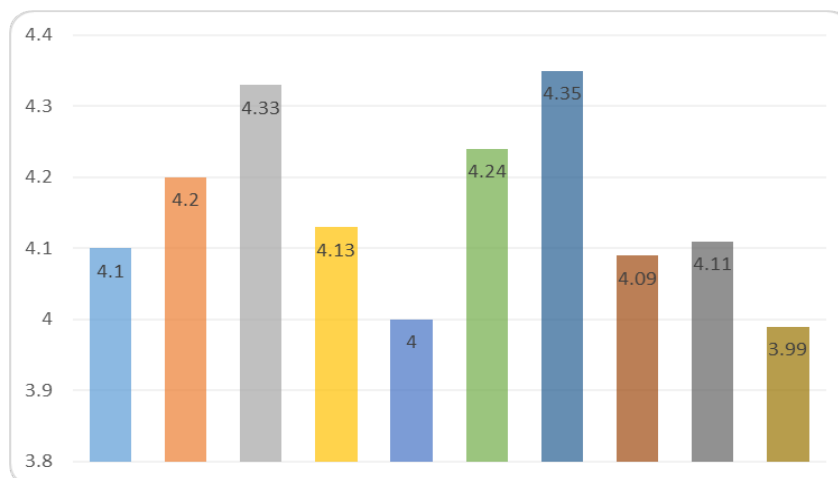


Figure 1: Comparison of respondents' answers in Question

As it can be seen in the table and chart above, among the proposed questions, The seventh question with an average of 4/35, the third question with an average of 4/33, the sixth question with an average of 2/24 , the second question with an average of 4/20, the fourth question with an average of 4/13, the ninth question with an average of 4/11, the first question with an average of 4/10, the eighth question with average of 4/09 , the fifth question with an average of 4/00, the tenth question with an average of 3/99 have allocated the highest and the lowest average respectively.

Hypothesis Test

This hypothesis is formulated as follows:

Lifestyle and its components are correlated with authoritative parenting style and it can be predicted. According to the type of hypothesis, correlation statistical test is the test for analyzing this hypothesis and also considering that the type of data scale is ordinal, the Spearman correlation coefficient has been used.

Table 2: Relation parent's lifestyle by the authoritative parenting style

Questions	Sperman s rho correlation	SIG
While I was growing up my mother felt at home, kids will go the same way whose parents have gone?	0.700	0.000
My mother always felt that what children need is to be free to think and do what they want to do, even if it does not match to what they want?	0.787	0.000
While I was growing up, my mother did not feel that I need to follow the rules and regulations, just because they have been imposed by an authoritative person.	0.757	0.000

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Questions	Sperman s rho correlation	SIG
While I was growing up, my mother rarely set expectations and rules for my behavior and rules and she rarely guided me?	0.867	0.000
By the time I was growing, my mother often did things that kids wanted?	0.874	0.000
My mother feels that if parents do no limit the activities, decisions and aspirations of their children during growth, social problems will be solved?	0.867	0.000
While I was growing up, My mother allowed me to decide further of my related tasks without her supervision?	0.874	0.000
While I was growing up, my mother didn't know herself responsible for guiding my behavior?	0.693	0.000
While I was growing up my mother allowed me to look at the family's issues from my perspective and in general she allowed me to decide myself what I wanted to do?	0.853	0.000
While I was growing up my mother did not control behaviors and activities and aspirations of children in the family?	0.830	0.000

Prediction of relation between lifestyle and authoritative parenting style

In addition to the results obtained in the above tables, stepwise multiple regression method has been used to predict the role of lifestyle and authoritative parenting style.

Table 3: results of multiple regressions by entering the lifestyle to quation

The amount of t	Beta	Significance level F	The adjusted R2	R ²	R	The subscales
3.800	0.700	0.001	0.530	0.541	0.700	Authoritative

The dependent variable (Authoritative) and the independent variable (lifestyle) has a significant relationship at the level of $P = 0/05$. In the first step, the subscales of Authoritative variable were entered in the equation. Multiple correlation coefficient of R is equal to 0/70 and 0/54 was obtained for the coefficient of determination.

As it can be observed from above table, the obtained significant level is 0/000 in all proposed indices which shows a positive and significant correlation of these two variables (Lifestyle and authoritative parenting style). Multiple regression results also indicate that lifestyle and its components are correlated with authoritative parenting style and it can be predicted. In fact, according to the results it can be stated that the hypothesis is proven and confirmed.

DISCUSSION AND CONCLUSION

If we have a look at the impact of family in the formation of parenting style, we will realize that children will effect and will be influenced through relations and in fact, it is the family that makes humans and educate him and it is more effective in childhood age and he is dominated by parents in the critical period of his life.

Family is the most important center for growing and educating children. The child is born with his potential inherited powers in family and after it, it is the environment with behavior powers which has surrounded the child from the beginning of the birth and even before birth and the socialization process is because of interaction with each one of members of the family. On the other hand, parents must provide the best and most effective ways of socialization and construction of a proper upbringing to create healthy and constructive relationships with children and with the affection and by determining stable indices of the desired behaviors.

In this regard, the goal of present research is analysis of the role of parent's lifestyle by the authoritative parenting style. The research method is descriptive-analytic based on library, documentary and field studies. Statistical Society of the research is all intelligent girls of grade three in high school of Zahedan during 2015-2016 school years. Cochran formula has been used to determine the sample volume which 311 people were estimated. Spearman statistical methods and multiple regressions have been used to analyze the data. The results of the research show that the lifestyle and its components have a significant correlation with authoritative parenting style and can predict it.

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Comparison of Three Methods of Existential Psychotherapy, Individual, Group and Combined To Increase Marital Satisfaction

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ABSTRACT

The purpose of the present study is to investigate the effectiveness of three: individual group and combined methods of psychotherapy based on the existential approach, in order to compare the increase in marital satisfaction of married women. The method used by the authors of this study was the Single Subject Assessment A-B. The statistical society of this study consisted of married women living in Mashhad's 9th municipal district of Iran. The study's sample selection followed a non-random-available method. Study's tools consisted of demographic questionnaire, cognitive interviews and analog questions. Data analysis was conducted by means of presenting charts and graphs and clinical significance. Investigating the findings of analog questions indicated that combined method of existential psychotherapy is more effective in increasing marital satisfaction than group and individual existential therapy, and that group existential psychotherapy is more effective than individual existential therapy. Also, our follow up investigation, three months after the interventions showed that the effects of combined method of the end of therapy on married women lasted longer than individual and group methods of existential psychotherapy, also the effects of individual method of existential psychotherapy lasted longer than group method of existential therapy.

Keywords: *Effectiveness, individual group and combined methods of existential therapy, marital satisfaction, single subject assessment A-B*

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Before the 7th decade of the 20th century, the focal point of most studies conducted about family was divorce and its social-psychological effects on family members. However, from that decade on, scholars' attention shifted toward the issue of marital dissatisfaction and finding ways to increase marital satisfaction. The term marital satisfaction which refers to the mental assessment and the feelings of couples toward each other in marital relationship is the tangible feeling of satisfaction, pleasure and enjoyment experienced by the husband or wife when assessing the overall state of their marriage. In their study on 800 participants, Shumway and others realized that 65 percent of people have ranked their family problems as significant or severe. Olson and others' study found the correlation coefficient between marital satisfaction and family satisfaction to be about 70 percent, and the correlation coefficient between family satisfaction and life satisfaction to be approximately 67 percent. In other words: the health of society and family is related to the degree of people's marital satisfaction.

Scholars have also found that the negative effects of conflict (anger, hatred, unhappiness and fear) in couples' interactions is related to the amount of quarrels and fights between them, it is because as the amount of conflicts and dissatisfaction between couples rises the harder it becomes for them to live together and this might push them toward divorce. Investigation on the statistics of the United States indicates that 97 percent of adults in that country marry at least once during their lifetime. However, one out of four of those marriages end in divorce. Recently, the divorce rate in Iran has experienced a 2 percent rise. According to Husain Nayeri, the managing director of Khorasan Razavi's Births, Deaths and Marriage Registration Office with the divorce rate of 2.6 in a thousand in 2013, that province has the highest rate of registered divorce in the country. In addition, divorce which is a social phenomenon not only creates crisis for the divorcees but also traumatizes their children as much as their deaths might have traumatized them.

Moreover, many studies have shown that marital dissatisfaction can negatively affect couples' mental and physical health. The studies of Levinger and Hutson indicates that many marriages experience a time of significant disorderliness which puts one or both partners in the danger of developing mental disorders (e.g. anxiety, depression). Marital and family problems might lead to the development of disorders such as anxiety, depression, bipolar disorder, immune system disorders, children and adolescent aggression, eating disorders and alcoholism and also physical disorders such as heart disease. Marital conflicts might even create behavioral and psychological problems in children such as depression and even suicide. Marital dissatisfaction negatively affects children's general health and parents and child interactions. Children of unhappy marriages tend to experience autonomic stimulations and severe anxiety in their interactions with their parents.

Comparison of Three Methods of Existential Psychotherapy, Individual, Group and Combined To Increase Marital Satisfaction

Today's science of psychology hugely investigates marital issues and conflicts. Constructive, systematic, guiding, relationship, cognitive, behavioral, truth therapy and also existential approaches are among the approaches that try to analyze and eliminate marital problems. Studies' antecedents of therapeutic interventions support the effectiveness and reliability of the system of family therapy. According to many studies, different approaches for couple therapy have average or significant statistical effects and often clinical ones. In addition, many studies testify to the positive effects of existential psychotherapy on different demographics and different problems. Corsini and Wedding (2011), suggest that many methods and principles of the existential approach are applicable for working with couples, families and groups. The family and couple therapy approach which was developed by Lantz is among those methods that its application might be beneficial in the mentioned subject.

In the existential psychotherapy, four basic assumptions are considered that can be used on patients in individual and group therapies. Those assumptions consist of: life and death, freedom, responsibility, the choice between isolationism and love making and finally seeking meaning and meaninglessness. In individual method of existential psychotherapy, the mentioned pattern not only focuses on the relationship between family members but also considers the experiences of each person from his/her own existence. In group method of existential psychotherapy, one or sometimes two therapists sit with eight to fifteen participants, and by following the mentioned pattern analyze participants subjectively, emotionally and psychologically in order to find a good solution for their problems. Participants also try to be as genuine as possible through an inter-individual relationship. The combined method of psychotherapy is an exclusive therapy and is not a system in which individual psychotherapy would be added to group therapy, and also does not mean that the therapist would see each participants of group therapy individually, rather, its purpose is to identify those who need more help in order to offer extra help to them. Sometimes, in order to understand interventional behavior and the distinct relationships between group members accurately, a therapist must see each of them individually, such two purpose review, might help the progress of the group as well.

Existential psychotherapists tend to encourage their patients to change the chief worldview and philosophy of their life. They mostly focus on family members' ability to extort creativity, freedom, bravery, flexibility, finding meaning and challenging life and its limitations. Therefore, helping couples to recognize, get involve, change and extend real patterns here and now can work as a facilitator for freedom and can extend the ability of taking responsibilities. As Ventares (1999) states:" Existential counseling is probably the most beneficial approach to help therapy seekers of most cultures, so they could find meaning and coordination in their life. This is due to this approach's focus on peoples' serious concerns such as love, anxiety, enduring pain and death.

Comparison of Three Methods of Existential Psychotherapy, Individual, Group and Combined To Increase Marital Satisfaction

Studies conducted on applying existential approach for the purpose of increasing marital satisfaction have indicated its effectiveness. In their study, Lantz and Gregor applied the Existential Trauma Therapy (ETT) on patients recovering from heart attack based on the single subject method. Their findings indicate that such therapeutic method is indeed very useful especially when combined with individual, couple and family therapy methods. Richardson, Golden Kreutz and Anderson, Jim (2006), have also used the existential therapy psychotherapy approach in order to test its effectiveness on women suffering from breast cancer. Their findings displayed this approach's effectiveness in changing those women's views about cancer and life and in optimizing their family and marital performance.

Abdeh Khodaie (2008) has also conducted an study on this subject titled "*Investigating and Comparing the Degree of Effectiveness of Existential Group Therapy and Cognitive Behavioral Group Therapy on Increasing Marital Satisfaction*" He has reported both approaches to be effective on increasing marital satisfaction, but in his follow up section has named existential approach as the one with more lasting effect. In his study on the effectiveness of existential group psychotherapy for increasing marital satisfaction in married women, Razi (2011), has also reported the approach's effectiveness. In addition to those, in a study titled "*A Comparison of the Effectiveness of Existential and Cognitive-Behavioral individual - Group Therapy on Fear*" Dogahe, Muhammad Khani and Dowlath-Shahi (2012), proved both interventional approaches to be equally effective. Zard -Khane , Khodayari Fard , Afrouz, Sohrabi, Yunesi, Bonab and their colleagues (2009), have also reported the effectiveness of combined interventions compared to individual and group ones for reducing psycho cognitive disorders in prisoners.

A huge spectrum of couples who seek counseling, have often used many other solutions and turned to a professional as their last effort. Such attitude might help the therapist to determine what he/she should seek in his/her patients. It is based on such theoretical viewpoint that the therapist offers his chief therapy assumptions. Even though many studies have been conducted about the effectiveness of different approaches for increasing marital satisfaction in married women, however, the existential approach, despite its rich infrastructure has rarely been studied. Also, finding an approach which would produce the best result in the shortest time is of utmost importance. Many foreign and home studies have been currently conducted on comparing individual and group therapy using different approaches , however investigating the effectiveness of simultaneous therapy meaning the combined method of individual and group therapy and comparing them together has been hugely ignored. Therefore, this study aims to investigate the effectiveness of three methods of individual, group and combined psychotherapy on increasing marital satisfaction in married women and to compare the longevity of their effects three months after the interventions. It is worth mentioning that covering this subject might introduce efficient methods and approaches for many similar clinical conditions.

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Study's Main Hypotheses

1. Individual psychotherapy based on existential approach would increase marital satisfaction of married women.
2. Group psychotherapy based on existential approach would increase marital satisfaction of married women.
3. Combined psychotherapy therapy based on existential approach would increase marital satisfaction of married women.
4. The effectiveness of each three psychotherapy methods of individual, group and combined on marital satisfaction is different,

Study's Secondary Hypotheses

1. Individual psychotherapy based on existential approach has a long lasting effect on marital satisfaction of married women.
2. Group psychotherapy based on existential approach has a long lasting effect on marital satisfaction of married women.
3. Combined psychotherapy therapy based on existential approach has a long lasting effect on marital satisfaction of married women.
4. The longevity of effectiveness of each three psychotherapy methods of individual, group and combined on marital satisfaction is different,

METHODOLOGY

The statistical society of this study consisted of married women living in Mashhad's 9th municipal district, whom volunteered to participate in the study after reading the notification of participant recruit for a study and all of them were motivated to increase their marital satisfaction. The study's sample selection followed a non-random-available method; this was due to the various restrictions which barred us from random sampling. Nevertheless we did our best to choose the most random participants out of those preselected. Therefore, firstly we evaluated the participants in terms of their degree of intelligence (due to the deep concepts of existential approach), living away from their husbands, having severe physical or mental disorders, and the lack of receiving current of cognitive psychotherapy, and selected 50 volunteers to participate in the study. Then, due to the single subject assessment nature of the study we selected 10 people out of that 50 in order to control other interventional variables of the study. The mentioned 10 participants were selected with the advice of the expert colleagues of this study. The criteria for singling out the 10 last volunteers was : acquiring point 3 in answering the analog question about the evaluation of their marital satisfaction, being between the age range of 35 to 40, being married for 17 to 20 years, having two children, having a high school diploma and belonging to the middle class of society.

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In the next stage, we chose 3 people out of that 10 singled out participants following a random simple selection approach. Then we randomly placed one of them in the individual psychotherapy group, one in group psychotherapy group and one in combined psychotherapy group. The assessment of the experiment's individual method group was carried out weekly in twelve, 45 minutes long sessions of individual therapy based on the existential approach, the assessment of the single subject of the group therapy method was carried out weekly in twelve, 2 hours long sessions of group therapy based on the existential approach, finally the assessment of the single subject of the combined therapy method was carried out weekly in twelve, 45 minutes long sessions of individual therapy and weekly twelve, 2 hours long sessions of group therapy based on the existential approach. Since there was a need for a psychotherapy group in order to increase the effectiveness of group psychotherapy, 10 volunteers were chosen to be in that group after a psycho-cognitive interview with the first 50 people. Next, the target participants who were previously chosen to investigate the effectiveness of group and combined existential psychotherapy joined the group and the group began its work with 12 participants and one psychotherapist. However, by the end of the study the number of participants shrank to 10 (one person after the first session and one person after the fourth exited the group).

The method of this study was the Single Subject Assessment A-B, whose purpose is applicatory and developmental. Psychotherapists and expert specialists prefer this method due to its inexpensiveness and because it does not demand a lot of time and last but not least because it is underlying philosophy corresponds to the mind set of Psychotherapists and expert specialists, this is because these methods tend to focus on people's complexity and uniqueness.

Experimental designs of single subject studies consist of: such studies who investigate the effectiveness of a therapy or experimental interventions on a subject. Technically speaking, all single subject designs in non-random experimental designs are considered as a single unit in which self assessment would be considered as its own group's control tool. The A-B design starts with a series of "basic line measurements" and the first experimental intervention will be applied after that. We are dealing with distinct symbols in such domain. A would be held as the basic line or the hands-off stage and B would represent therapies or various experimental interventions.

Since our study's purpose was to investigate the effectiveness of three: individual group and combined methods of psychotherapy on increasing marriage satisfaction of married women, thus we first operationally defined marital satisfaction which is the study's dependent variable. In this study we considered the quantity of participants' points in answering the analog question of "*Rate your weekly marital satisfaction from 0 to 10*" as the ratio of their marital satisfaction (the higher the point, the higher the marital satisfaction). The validity of the point given by participants was verified through psycho cognitive interviews. In this method, first we applied

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our chosen intervention which was individual, group and combined existential psychotherapy on the target participant from the point A (analog question point 3), then in the B section the reduction in abundance, severity of the problem and the effectiveness of interventions was analyzed.

In order to gather enough data, we've asked the analog question before the onset of each session and also during them and recorded participants' answers to it. Then, we draw chart or figures using the collected data. The analog question was again asked and the psycho-cognitive interview was carried out 3 months after the end of the interventions in order to investigate the sustainability of the effects of the three therapy methods.

According to Bugental (2009), the individual existential therapy method consists of the following items: **the first aspect which** is a three item assessment. First the psychotherapists' assessment of the problem and whether it can be limited to certain domains or it can clearly expressed? Next is the psychotherapist's assessment of the urgency (pain and anxiety) of the patients' problem. Whether their ego has the sufficient strength to endure a complex approach, finally psychotherapist's assessment of whether the patients' ego has an efficient performance that would support them through a complex investigation. Before taking the first step the mentioned conditions should be met and the number of sessions should be specified and agreed on. **The Second Aspect:** This involves encouraging patients to list their concerns. Then the psychotherapist attempts to explain the issues of the patients clearly and without any misrepresentation or worry. **The Third Aspect:** this involves teaching the process of investigation and searching. This stage includes teaching the patients to confront their problems deeply and to focus on them. **The Fourth Aspect:** this involves understanding the resistance of the patients. As the patient continues to dig deep they might display some resistance, in this stage they would be encouraged to write down the process and begin their investigation anew. Due to the mentioned resistance, a meaningful change might not occur and the change occurred would be probably shallow and unsustainable. It is necessary for the patients to understand this. In other words the patients might not understand the degree of this short time activates and might consider them to be therapy limitations. **The Fifth Aspect:** this involves deepening the therapy. In this stage two parameters are of utmost importance and should be repeatedly explained to the patients. First: restraining needs must be recognized and should not be ignored. Second: actions that shift toward concerns must be identified. Considering these two parameters requires significant therapy skills. Without the structure, this process might accidentally lead to beneficial changes in the following actions. **The Sixth Aspect:** also known as the final aspect. In this stage patients need to view their final session as the conclusion, helping the patients to reflect what they have gained during the therapy and explaining the matters not understood by them is recommended in this stage.

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A person who received combined existential psychotherapy from a single therapist (researcher), had benefited from both individual and group therapy as well, and this schedule was carried out on a regular basis. Our group existential therapy was mostly based on James's (2005) views, except for group's special rules such as: informing group members about group progress, obeying group rules such as : keeping secrets, not interrupting others' speech, listening to others etc. the content of individual and group session was based on the basic principles of existential approach which consisted if : existential analysis of openness and self expression, introducing the psycho-cognitive concepts of freedom of choice, informing about the consequences of freedom of choice in marital relationships, explaining the role of taking responsibilities in self growth and the growth of marital relations, encouraging new decisions and taking responsibility for the choices made, being aware of your partner's internal world, and trying to get used and coordinated with your partner's way of being, understanding the incompatibility of isolationism and closeness with others, understanding the role of closeness in enduring loneliness, reducing unhealthy attachment in marital relations and helping to gain individuality in a fruitful relationship, reminding and investigating the hidden meanings of marital relations, explaining love as need for getting united with the universe, explaining honest and humane kindness and its effect on maintaining a satisfactory marital relationship. The content of each session was based on the participant's needs and followed the advice of the expert colleagues of the study in accordance with the above concepts. It is worth mentioning that the above concepts were not applied in a particular order.

Materials

The measuring tools of the present study consisted of a demographic questionnaire, psycho-cognitive interviews and an analog question.

A: Demographic Questionnaire: In order to coordinate the singled out participants with each other and to increase data compatibility, we've used a self-made questionnaire following the advice of the expert colleagues of the study. The mentioned questionnaire asked for information such as: participants' age, years of marriage, number of children, degree of education, place of residence and participants' social-economic class.

B: Psycho-Cognitive Interview: In order to evaluate the singled out participants we have conducted a psycho-cognitive interview with them following the advice of the expert colleagues of the study. The mentioned interview consisted of: investigating volunteers' motive, their level of intelligence (due to the complex concepts of existential approach), whether they lived with their husbands, and the existence of a severe physical ailment and whether they were currently receiving therapy. Additionally, we conducted a secondary psycho-cognitive interview at the beginning of each therapy session and the follow up session after participants answered the analog question and Self assessed the ratio of their marital satisfaction in order to verify their score. The mentioned interview involved asking about the reason why their score has increased or decreased.

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C: The Analog Question: In order to investigate the marital satisfaction of the single subject, we came up with an analog question which asked the participants to rate their weekly marital satisfaction from 0 to 10 (we assumed a higher score as higher marital satisfaction) this was done following the advice of the expert colleagues of the study.

Findings

Demographic Data

1. The single subject of the **individual** existential therapy was a Mrs. A, who was 37 years of age, was married for 17 years, had a high school Diploma, had 2 children, and was coming from a middle social-economic class. She had rated her marital satisfaction as 3 prior the onset of therapy.
2. The single subject of the **group** existential therapy was a Mrs. A, who was 36 years of age, was married for 18 years, had a high school Diploma, had 2 children, and was coming from a middle social-economic class. . She had rated her marital satisfaction as 3 prior the onset of therapy.
3. The single subject of the **combined** existential therapy was a Mrs. S, who was 35 years of age, was married for 19 years, had a high school Diploma, had 2 children, and was coming from a middle social-economic class. . She had rated her marital satisfaction as 3 prior the onset of therapy.

Analysis Data

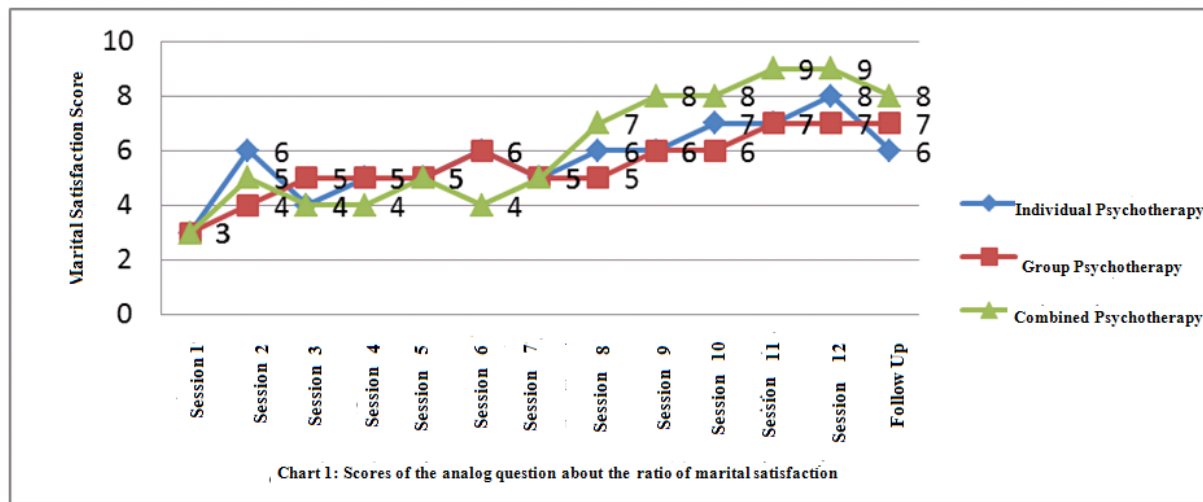
In order to investigate the effectiveness and sustainability of individual, group and combined existential psychotherapy and to compare the above three methods with each other, we have analyzed the scores acquired from asking the analog question. Table 1, shows the scores of the analog question that was the ratio of marital satisfaction, in a separate manner.

	Sessio n 1	Sessi on 2	Sessio n 3	Sessio n 4	Sessio n 5	Sessio n 6	Sessio n 7	Sessio n 8	Sessio n 9	Sessio n 10	Sessio n 11	Sessio n 12	Follo w Up
Individual	3	4	5	5	5	6	5	5	6	6	7	7	7
Group	3	6	4	5	5	6	5	6	6	7	7	8	6
Combined	3	5	4	4	5	4	5	7	8	8	9	9	8

Table 1: Self report scores of the analog question about the ratio of marital satisfaction

Chart 1, shows participants' score in answering the analog question asked at the beginning of each session about the ratio of their marital satisfaction in order to **facilitate the analysis process**. It is worth mentioning that the mentioned chart shows the scores of individual, group and combined psychotherapies separately.

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As you can see on Table and Chart 1, the single subject of individual existential psychotherapy, began her treatment from the basic line A, with the score of 3. However by the end of treatment and in the finish line B or the twelfth session, (B1: 7) her satisfaction has increased ($3 < 7$). Therefore the first main hypothesis of the study regarding the effectiveness of individual existential psychotherapy on increasing marriage satisfaction was verified.

Also, as you can see the marriage satisfaction score in the follow up line of B2 or 3 months after the last session was greater compared to the earlier line of A ($3 < 7$). Thus, the secondary hypothesis of the study regarding the longer lasting effects of individual existential psychotherapy treatments was verified.

Investigation revealed that the above hypothesis was in accordance with study results of Lantz and Gregor (2003) and Richardson, Golden Kreutz, Anderson and Jim (2006).

Moreover, as you can see on Table and Chart 1, the single subject of individual existential psychotherapy, began her treatment from the basic line A, with the score of 3. However by the end of treatment and in the finish line of B or the twelfth session, (B1: 8) her satisfaction has increased ($3 < 8$). Therefore the second main hypothesis of the study regarding the effect of group existential psychotherapy on increasing marriage satisfaction was also verified. Also, as you can see the marriage satisfaction score in the follow up line of B2 or 3 months after the last session was greater compared to the earlier line of A ($3 < 6$). Thus, the second secondary hypothesis of the study regarding the longer lasting effects of group existential psychotherapy treatments was verified.

Investigation revealed that the above hypothesis was in accordance with study results of Abdeh Khodaie (2008) and Razi (2011) that also found the existential psychotherapy methods to be effective for increasing marital satisfaction.

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Also, as you can see on Table and Chart 1, the single subject of combined existential psychotherapy, began her treatment from the basic line A, with the score of 3. However by the end of treatment and in the finish line of B or the twelfth session, (B1: 9) her satisfaction has increased ($3 < 9$). Therefore the third main hypothesis of the study regarding the effect of combined existential psychotherapy on increasing marriage satisfaction was also verified. Also, as you can see the marriage satisfaction score in the follow up line of B2 or 3 months after the last session was greater compared to the earlier line of A ($3 < 8$). Thus, the third secondary hypothesis of the study regarding the longer lasting effects of combined existential psychotherapy treatments was verified as well.

Investigation revealed that the above hypothesis was in accordance with study results of Zar-Khaneh, Khdayari Fard, Afrouz, Sohrabi, Yunesi, Bonab, Shokouhi, Faghihi, Beh Pajouh, Abedini, Rostami, Ismaili, Motevali and Ahmadi (2009).

In addition to those, as you saw on Table and Chart 1, all single subjects of combined existential psychotherapy, began their treatments from the basic line A, with the score of 3. However, by the end of the twelfth session B1, participant of combined psychotherapy have reported a higher degree of marital satisfaction compared to the participant of group ($8 < 9$) and individual psychotherapy ($7 < 9$). Therefore the last main hypothesis of the study regarding the difference between three methods of individual, group and combined existential psychotherapy was verified. Also, comparing the effectiveness of the mentioned three methods of treatment s in the follow up line of B2 reveals that the participant in combined existential psychotherapy had a greater marital satisfaction compared to individual $7 < 8$ and group $6 < 8$ psychotherapy participants, and the participant of individual psychotherapy had also reported a higher degree of marital satisfaction compared to the participant of group psychotherapy $6 < 7$. Thus, our last secondary hypothesis regarding the differences between the longevity of the effects of three method of individual, group and combined existential psychotherapy was also verified.

Investigation revealed that the above hypothesis was not in accordance with study results of Do Gaheh , Muhammad Khani and Dowlat-Shahi (2012), but was in accordance with study results of Zar-Khaneh, Khdayari Fard, Afrouz, Sohrabi, Yunesi, Bonab, Shokouhi, Faghihi, Beh Pajouh, Abedini, Rostami, Ismaili, Motevali and Ahmadi (2009).

DISCUSSION

The present study was conducted due to the importance of marital relations and in order to present the best approach and therapy method for increasing martial satisfaction. Therefore, we chose the existential approach due to the humanistic nature of the study and the strong antecedents of using this approach for individual, group and combined psychotherapy. It is worth mentioning that in the investigation of the effectiveness and comparison of group psychotherapy

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method, we focused only on the study results of the single subject of group psychotherapy as our main purpose of the study. Therefore we did not examine other findings of the group therapy experiment in details.

Investigating the effectiveness of therapy methods using result analysis by means of drawing charts and clinical significance of the marital satisfaction of all three single subjects of individual, group and combined psychotherapy revealed that they generally experienced a significant progress since the onset of their treatment. This proves the effectiveness of existential approach in increasing marital satisfaction. Perhaps this is due to the nature of this approach which allows the therapist to give his/her patient the freedom of choice and warn him/her that the main purpose of treatment is for him/her to face his/her anxieties. When the patient realizes this he/she senses fear which is tangible and real. Now, the patient has the chance to reduce his/her anxiety. Even though facing the anxiety caused by existential loneliness is a different, still many marriages and relationships break up. This is because in such case one person uses another merely to evade loneliness. Therefore accepting that we need closeness with others but we might not be able to do successfully, might help us deal with our existential loneliness. On the structure of personality, existential approach emphasizes the deep effects of everyday experiences and does not dwell on improving patient's past, rather it shatters the obstacle on the way of patient's decision making power in order to lead him/her toward autonomy. The product of existential psychotherapy would be a bold and strong person who is able to deal with responsibly, loneliness and anxiety in an efficient manner.

Moreover, in comparing therapy methods using result analysis through chart drawing and clinical significance we realized that right after the end of treatment and 3 months after the last session the participant of combined therapy has reported a higher ratio of marital satisfaction compared to individual and group therapy participants. This might be partly due to the psychotherapist's efforts in individual sessions to solve issues and eliminate the resistances that might create some problems in group sessions and , and partly due to the relief participants feel when meeting people with the same issues as them in groups and receive social feedback , something that might never occur in individual sessions. Therefore, the patient receiving combined psychotherapy might express more enthusiasm to continue her treatments.

The single subjects of combined and group therapy stated in the psycho-cognitive interview that they had felt hope, shared common concerns and experienced an increase in marital satisfactions while attending group psychotherapy. The single subject of combined existential therapy counted factors such as self revelation, revealing a secret to group members and the way of self-expressions in the group as effective factors in increasing her marital satisfaction. Participants of existential group therapy face some of their concerns such as their inability to form meaningful relationships with others, and therefore they identify the obstacles on the way of forming

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relationships with others in the real world. Such method of therapy would be very effective for someone who has freed him/herself from past restrictions and is in need of replacing novel individual patterns in his/her life (the reason we used middle age participants). During such therapy these people tried to let go of family designs that had worked well for sometime but have become problematic, in order to create new meanings in their lives.

Moreover, as you just saw, immediately after the last session the single subject of existential group therapy expressed a higher degree of marital satisfaction compared to the individual existential psychotherapy single subject. This is perhaps due to some particular factors of group psychotherapy such as: harmony motivated learning, generality, being optimistic about the treatment, helping other people, observational learning and facilitating the release of excitement that might have sped up the progress of the participant of group psychotherapy. Psychotherapists used to put more value on individual psychotherapy and would consider group psychotherapy as a secondary and less effective option. However, the effectiveness of group therapy has become clear today. Nevertheless, in the follow up session after the treatment the participant of individual psychotherapy reported a greater degree of marital satisfaction compared to the participant of group psychotherapy sessions. Perhaps this indicates that group psychotherapy might create faster results, however, individual sessions have more depth. Thus they leave a longer lasting effect on patients. Nevertheless, uncontrolled factors might have also played a role in producing such results.

The single subject of individual existential psychotherapy reported a slower process compared to the other single subjects, however, as we approached the last session she showed a significant improvement, not to forget that her treatment had a longer lasting effect compared to the group psychotherapy single subject. In her psycho-cognitive interview, three months after her last session of psychotherapy, the single subject of individual existential psychotherapy stated factors such as gaining self confidence, self acceptance, acquiring insight to her problems and accepting life's limitations as the reason for her improvement. On the other hand, despite psychotherapists' confirmation of the slow process of progress in individual psychotherapy however, they repeatedly remind the patients of the following: "You are not doing what you want to do." This way they inform patients about the two important items of determination: wanting and doing something about it. Such deep realization might help the patients to face their problems honestly and might make them more responsible.

CONCLUSION

Moreover, in comparing therapy methods using result analysis through chart drawing and clinical significance we realized that right after the end of treatment and 3 months after the last session the participant of combined therapy has reported a higher ratio of marital satisfaction compared to individual and group therapy participants. Despite the results of this study regarding

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the effectiveness of combined existential psychotherapy on increasing marital satisfaction of married women, it is necessary to view these results as early and not absolute. Therefore, applying such method in other experimental groups in form of single subject designs with longer sessions and in single subject designs with more psychotherapists and in form of couple therapy would be recommended.

Moreover, psychotherapist must note the fact that in combined psychotherapy (simultaneous individual and group psychotherapy), therapists' role would necessarily change and would become more complex. Psychotherapists in group sessions have more freedom to ask questions, guess blindly, ask general and comprehensive questions, encourage group members to express their feelings toward one another or about some other events, while, in combined psychotherapy the therapist knows those information already so he/she should be careful not to ask questions whose answers he/she already knows. In such method of psychotherapy, the therapist realizes that he/she is less active toward the combined psychotherapy patient, something that makes offering both form of therapies more challenging, because the therapist should show two sides of her/himself in such therapies, meaning he/she should be more informal and relaxed In group therapy while trying to stay formal in individual sessions.

It is worth mentioning that the participant of individual existential therapy was more intelligent compared to the single subjects of group and combined psychotherapy, something that made working with her more challenging, but in turn she had the strength to dig deep into her problems and face them head on. According to the psychotherapist the mentioned participants might have had better results if she would extend the numbers of her sessions to twenty, Therefore, we must not ignore the effects of individual, cultures differences, environmental conditions, the ability of the therapies or other uncontrolled factors when interpreting study results. Moreover, the findings of the present study should be interpreted with cautious due to its single subject nature and the its restricted sample (women between the ages 35-40, with two children, married for 17-20 years, with a high school Diploma, living in Mashhad's 9th municipal district, coming from the middle social-economy class) and its lack of control for disruptive variables such as cultural, family, intelligence and personality level. Even though, we did our best to control the condition as much as possible, however, full control has always proved difficult in humanistic and cognitive psychology experiments.

Lastly, since the effectiveness of individual, group and combine existential psychotherapy was verified in this study and because of married women's needed to increase their marital satisfaction, we recommend psychotherapists to consider these methods in their therapy programs.

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Emotion Regulation Choice: Differences in U.S. and Indian Populations

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ABSTRACT

In the past two decades, researchers have conclusively demonstrated that various emotion regulation (ER) strategies give rise to differing consequences. Such findings have prompted an examination of the internal and external factors that contribute to emotion regulation choice. Previous empirical studies modeling ER choice have been limited to Western samples. Based on knowledge of the role of culture in other choice behavior, we sought to test whether culture was a driver of ER choice. For the present studies, we compared ER choices of participants from India, to ER choices of participants from the U.S.A. Research demonstrating a correlation between religiosity and effective use of cognitive reappraisal lead us to anticipate the more religious India showing higher rates of cognitive reappraisal. Based on the incorporation of acceptance themes in Indian philosophy, as well as higher rates of fatalistic outlooks in India, we also expected to see Indian participants more frequently using an acceptance ER strategy. We further expected that difference in choice strategies would be moderated by emotional intensity of the stimuli. To test these hypotheses, we presented high and low-intensity emotion-eliciting images to both samples and recorded ER choice selections. We discovered that as hypothesized, the Indian sample was significantly more likely to use cognitive reappraisal than the U.S. sample, specifically for high intensity images. Contrary to our hypothesis, the choice rate for acceptance was indistinguishable in the Indian and U.S. samples. This research indicates that culture bears considerably on which strategies people choose to employ when regulating emotion in response to negative stimuli.

Keywords: *Emotion Regulation Choice, Culture, India, U.S.A.*

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Emotions are a useful adaptation to recurring challenges of human life. They allow us to form attachments and maintain relationships (Keltner & Haidt, 1999). They prepare us physiologically to respond to potential threats (Susskind et al., 2008). They even help us to make good decisions (Bechara, Damasio, Tranel, & Damasio, 1997). Emotions offer us non-deterministic behavioral response tendencies. However, when an emotional response is unsuited for the situation at hand, we often seek to change or regulate our emotion before translating it to a behavioral response.

A growing body of research in the past two decades has demonstrated that the choice of emotion regulation (ER) strategies we employ give rise to myriad consequences in spheres ranging from mental health, to everyday affect, to cognitive functioning, to social success (Gross & Muñoz, 1995; English, John, Srivastava, & Gross, 2012; Gross, 2002; Gross & John, 2003; Richards & Gross, 2000). Given the variety of consequences that result from choosing one ER strategy over another, it is important to understand the various factors that influence ER choice. Prior research has demonstrated that person-specific factors such as age, gender, personality, race, and available cognitive resources influence which strategies people choose to employ (Gross & John, 2003; John & Gross, 2004; Scheibe, Sheppes, & Staudinger, 2015). For example, because distraction is less cognitively costly to implement, it is more likely to be chosen than reappraisal when cognitive resources are spread thin (Sheppes et al., 2014). Additionally, stimulus-specific factors such as the intensity of a negative stimulus have been shown to influence ER strategy choice. In particular, people are more likely to choose distraction over reappraisal when encountering high-intensity negative situations and vice versa in low-intensity negative situations (Sheppes, Scheibe, Suri, & Gross, 2011).

Building upon this, the present work analyzes the impact of culture on ER choice. Culture has been shown to play a role in choice behavior in many (non-ER related) domains (Weber & Hsee, 2000; Yates & Oliveira, 2016). However, prior research on the role of culture in ER has been subject to limitations that call for further investigation. For example, prior research has been primarily limited to Western and Far Eastern samples (Butler, Lee, & Gross, 2007). Furthermore, many prior cross-cultural studies on ER have used self-report questionnaires given to participants regarding the strategies they use in their daily life (Kwon, Yoon, Joormann, & Kwon, 2013; Soto, Perez, Kim, Lee, & Minnick, 2011; Matsumoto, Yoo, & Nakagawa, 2008). Problematically, the self-report framework is subject to issues with participants' memories, differences in ideal affect (that may influence participants' responses), and systematic situational differences confronting people in the cultures being studied. To address this limitation, in the present research, we conducted a series of studies in which ER choice was recorded immediately. This allowed for analysis of how entrenched paradigms of thought shaped by culture influence the choice of ER strategies.

To investigate this effect, we chose to compare Indian participants to American participants. We chose to focus on India for several reasons. First, despite its size, it has been understudied. India

contains a massive 17.9% of the entire world's population ("World Population Data Sheet", 2016). This figure does not include the vast Indian diaspora consisting of another twenty million people worldwide (Safran, Sahoo, & Lal, 2008). Second, religiosity is extraordinarily prominent in India. Recent estimates suggest that Hinduism is followed by 79.8% of the Indian population ("C-1 Population by Religious Community", 2011) and 90% of Indians state that religion is an "important part of their daily lives" (compared to 65% in the U.S.A.) (Crabtree, 2010). We hypothesized that the deep imbrication of religion with day to day to life in India (as compared to the U.S.A.) would impact the ER strategy choice of cognitive reappraisal. Cognitive reappraisal involves changing the meaning of a situation to reduce its emotional impact. Religion, which is a meaning-making system, has been linked to more effective use of cognitive reappraisal (Vishkin et al., 2016). Greater religiosity has also been associated with better long-term adjustment following bereavement and this superior adjustment was mediated by meaning-making coping (e.g. cognitive reappraisal; Park, 2005). Religion has also been shown to function as a coping mechanism among sick, elderly hospital patients by affording cognitive reappraisals (e.g. "God is teaching me a lesson"; Pargament, Koenig, Tarakeshwar, & Hahn, 2004). Given that 99.1% of Indian people identified as one of India's top six religions ("C-1 Population by Religious Community", 2011), and given that religion seems to foster habitual use of reappraisal, we predicted that an Indian sample would engage in reappraisal more than an American sample (Hypothesis 1).

Our second hypothesis involved choices related to the ER strategy of acceptance. Most previous studies of ER choice have focused on the strategies cognitive reappraisal and attentional distraction and have done so with participants primarily from Western cultures (Sheppes et al., 2011; Hay, Sheppes, Gross, & Gruber, 2015; Shafir, Schwartz, Blechert, & Sheppes, 2015). This strategy set omits acceptance—an important ER strategy that has been espoused in Indian philosophy for millennia and more recently adopted by the Western tradition with the emergence of Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999). ACT defines acceptance as "an abandonment of dysfunctional change agendas and an active process of feeling feelings as feelings..." (Hayes et al., 1999, p. 77). Given that Hinduism advocates for acceptance of pain and suffering on the grounds of it being an inexorable aspect of life that is neither bad nor good (Whitman, 2007), we reasoned that this ER strategy would be common amongst Indian adults. This hypothesis is further supported by other research showing that fatalistic outlooks, defined as the belief that whatever happens must happen (Bernstein, 1992, p. 5), appear more frequently in India than in several other countries, including the U.S.A. (Ayman et al., 2000). In the aforementioned study, the authors found that India scored highest on a scale of fatalism as compared to 10 other countries, with the U.S.A. in the bottom 3. We expected that the presence of a fatalistic acceptance in Indian populations would result in an increased preference for acceptance as an ER strategy.

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Due to prior studies demonstrating the paramount impact of stimulus intensity on ER choice (Sheppes et al., 2011), we expected that cultural differences in the preference of reappraisal (Hypothesis 1) and acceptance (Hypothesis 2) would vary by intensity. To test these hypotheses, we used a well-validated paradigm for ER choice (Sheppes et al., 2011) to create a cross-cultural comparison of Indian and American participants. Sheppes et al. (2011) presented participants with high and low-intensity emotion-eliciting images from the International Affective Picture System and asked them to select between ER strategy options while they viewed the image again for a longer period (Lang, Bradley, & Cuthbert, 2008). This study revealed that with images of a high-intensity negative valence, American participants were more inclined to use distraction than reappraisal. For images of a low-intensity negative valence, participants were more inclined to use reappraisal than distraction.

Since acceptance has never been studied in an ER choice context, in Study 1 we included this strategy option alongside the options to distract or reappraise. After obtaining unexpectedly high level of acceptance for low-intensity images in this study, we questioned whether participants were conflating acceptance with a decision to not use emotion regulation. To remedy this confound in Study 2, we added a “watch” option to reflect a participant’s choice to simply watch the photo with no regulation. Having created and validated a new ER choice paradigm that included acceptance, in Study 3 we directly tested for differences in usage of reappraisal and acceptance between Indian and American adult samples.

STUDY 1

In Study 1, our goal was to validate an experimental structure to test ER choice between the strategies distraction, reappraisal, and the previously unstudied option of acceptance. Following prior results (Sheppes et al., 2011; Shafir et al., 2015), we expected American participants to most frequently select reappraisal for low-intensity images and infrequently for high-intensity images. We expected distraction to be chosen most frequently for high-intensity images, while being used infrequently in low-intensity images. Finally, we expected Americans to choose acceptance equally infrequently for both intensities since negative emotion is generally considered something to avoid rather than accept by American culture (Koopmann-Holm & Tsai, 2014).

Participants

For this task, we used Amazon’s Mechanical Turk survey platform (henceforth, MTurk) to recruit paid participants from across the U.S.A. Thirty MTurk workers ($M_{Age} = 40.8$, $SD_{Age} = 11.06$) were screened by IP address and self-report to select American-born participants, currently located in the U.S.A., that were raised by American-born parents.

Procedure

Participants were given a brief introduction to ER and then trained on how to use three common ER strategies; distraction, reappraisal, and acceptance. In this training, participants first

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previewed a negative valence image from the IAPS for one second (Lang et al., 2008). Next, they were taught how to use one of the three ER strategies. Participants practiced each strategy twice—once with a low-intensity negative image, and once with a high-intensity negative image. The order that the strategies were taught and the order that the training images were presented were both randomized.

After the training phase, participants completed two practice trials of an ER choice test adapted from Sheppes et al. (2011). Each trial consisted of previewing an image for 1 second, selecting either distraction, acceptance, or reappraisal, and then implementing their chosen strategy while they viewed the image again for 6 seconds. This was followed by a manipulation check asking participants to reaffirm the strategy they had just implemented. Image order and choice option order were counterbalanced throughout the experiment.

The 30 images used for the choice phase of the experiment were the same images used in prior studies and were chosen to create two categories of stimulus intensity (high and low) based on their normative ratings for arousal (1 = low; 9 = high) and valence (1 = very unpleasant; 9 = highly pleasant) (Sheppes et al., 2011). The 15 low-intensity negative images were rated as mean arousal = 5.01 and mean valence = 3.41, while the 15 high-intensity images were rated as mean arousal = 6.12 and mean valence = 1.99, $F_s(1, 28) > 19.01$, $p_s < .001$. Previous studies have established that such arousal and valence differences are sufficient to create different levels of emotion-response activation, as indicated by physiological arousal (Bradley, Codispoti, Cuthbert, & Lang, 2001) and electro cortical markers of negativity (Weinberg & Hajcak, 2010).

The choice phase of the experiment was identical to the practice trials participants had previously completed. Participants again previewed an emotion-eliciting image for 1 second. Next, they indicated the ER strategy that would best help them to down regulate their negative emotion and implemented their chosen strategy in the subsequent 6 second viewing. Finally, participants reaffirmed which ER strategy they had actually used. Participants who failed this manipulation check on more than two trials were removed from analyses.

RESULTS

Two participants were removed from analyses for having more than two manipulation check failures. This left a final sample of 28 participants ($M_{Age} = 41.61$, $SD_{Age} = 10.97$).

Table 1.1, ER Choice Proportions: Study 1 U.S.A.

ER Choice	High Intensity		Low Intensity	
	<i>M</i>	95% <i>CI</i>	<i>M</i>	95% <i>CI</i>
Acceptance	29.52%	19.64% – 39.41%	60.48%	51.69% – 69.26%
Distraction	48.33%	38.39% – 58.27%	14.76%	7.01% – 22.51%
Reappraisal	22.14%	15.47% – 28.82%	24.76%	17.84% – 31.69%

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As expected, participants' ER choices were a function of intensity, and distraction was more frequent than both acceptance and reappraisal while viewing low-intensity images, both t 's > 2.06 , both p 's $< .05$, both d 's $> .38$. Contrary to our hypothesis, acceptance was far more frequent than both reappraisal and distraction while viewing low-intensity images, both t 's > 5.31 , both p 's $< .001$, both d 's > 1.00 .

A 2(Intensity: High, Low) X 3(ER Strategy: Distraction, Reappraisal, Acceptance) ANOVA was conducted with both factors being within-subject variables to further examine the ER choices of participants. There was a significant Intensity X ER Strategy interaction, $F(2, 54) = 53.26$, $p < .001$, $\eta_p^2 = .66$. As illustrated in Table 1.1, participants reported using distraction more frequently while viewing high-intensity images than while viewing low-intensity images, $t(27) = 8.17$, $p < .001$, $d = 1.54$. Participants indicated engaging in acceptance less during the presentation of high-intensity images compared to low-intensity images, $t(27) = -8.34$, $p < .001$, $d = 1.58$. Reappraisal usage not differ between the high and low-intensity images, $t(27) = -.89$, $p = .380$, $d = .17$.

DISCUSSION

The results reflected that participants select different ER strategies based on the image intensity. However, we were surprised by the exceedingly high rate of acceptance in the low-intensity condition since there was no conceptual reason to account for this. This lead us to hypothesize that some low-intensity images may not require emotion regulation, in which case participants might choose acceptance as a substitute for no regulation. To investigate this hypothesis, we included a "watch" option in Study 2 that would allow participants the option of not engaging in ER while viewing the images. If acceptance was being conflated with the decision to not use ER, watch would become the most frequent ER choice for low-intensity images and acceptance frequency would be reduced for low-intensity images. We tested this hypothesis in Study 2.

STUDY 2

In Study 2, we sought to finalize our experimental framework with a U.S. sample (Study 2a) and then validate that framework with an Indian pilot sample (Study 2b).

Study 2a

In Study 2a, we specifically sought to test whether American participants were conflating an acceptance ER strategy with a lack of need to regulate emotion. We considered that despite the average negative valence, some images may not incite every viewer to require emotion regulation. In such cases, we suspected participants would choose whichever strategy was closest to not using regulation. In Study 1, that option was acceptance. To overcome this confound in Study 2, we included a "watch" option.

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Participants

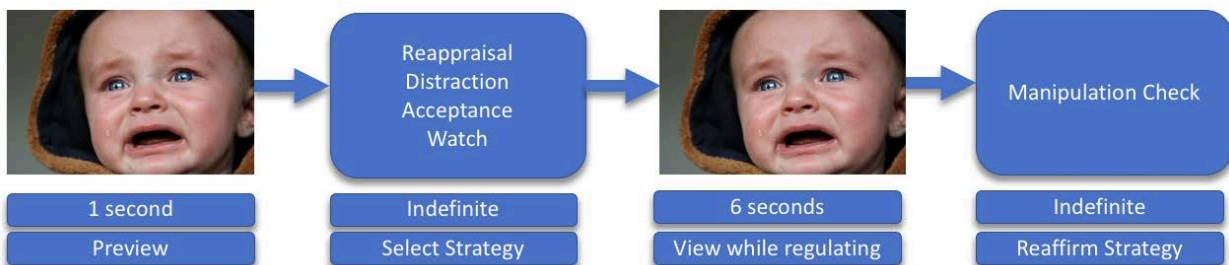
Forty-six U.S. based MTurk workers ($M_{Age} = 40.93$, $SD_{Age} = 13.98$) were recruited to complete this survey.

Procedure

Besides the inclusion of a watch option, the survey was identical to Study 1. The newly incorporated watch option was defined to participants as an option to be used if they anticipated being able to watch the photo for the entire 6 seconds without feeling motivated to regulate their emotion. As in Study 1, choice order and picture order were counterbalanced.

Figure 2.1¹

Procedure: Studies 2-3a



RESULTS

The total number of failed manipulation checks was calculated identically to as in Study 1 and participants with more than two failed manipulation checks were removed from analyses. This standard led us to remove 8 participants. After these removals, a final sample of 38 was left to examine ER choices ($M_{Age} = 40.47$, $SD_{Age} = 13.91$).

Table 2.1, ER Choice Proportions: Study 2a U.S.A.

ER Choice	High Intensity		Low Intensity	
	<i>M</i>	95% <i>CI</i>	<i>M</i>	95% <i>CI</i>
Acceptance	23.68%	17.31% – 30.06%	25.61%	19.04% – 32.19%
Distraction	44.91%	36.93% – 52.90%	4.91%	2.60% – 7.23%
Reappraisal	23.33%	17.64% – 29.02%	13.68%	8.72% – 18.65%
Watch	8.07%	4.43% – 11.71%	55.79%	45.70% – 65.88%

Again, distraction was the most frequent choice for high-intensity images, all t 's > 3.19, all p 's < .003, all d 's > .51.

As shown in Table 2.1, adding watch as an ER choice greatly reduced the percentage of instances participants chose to use acceptance while viewing low-intensity images. Acceptance in low-intensity conditions dropped from 60.48% (Study 1) to 25.61% (Study 2a). The newly created watch option was selected in 55.79% (Study 2a) of trials making it the most frequent choice for low-intensity images, all t 's > 3.83, all p 's < .001, all d 's > .62. This supports our

hypothesis that participants were indicating acceptance engagement when they were in fact viewing the images without using an ER strategy.

A 2(Intensity: High, Low) X 4(ER Strategy: Distraction, Reappraisal, Acceptance, Watch) ANOVA was again conducted with both factors being within-subject variables to further examine the ER choices of participants. As hypothesized, there was a significant Intensity X ER Strategy interaction, $F(3, 111) = 62.04$, $p < .001$, $\eta_p^2 = .63$, indicating that ER choices differ between the high and low-intensity conditions. To examine the interaction, paired t-tests were used to compare ER choice selections within the high and low-intensity image types. As shown in Table 2.1, participants reported watching (i.e., no ER engagement) high-intensity images less frequently than low-intensity images, $t(37) = -11.06$, $p < .001$, $d = 1.79$. Participants engagement in acceptance did not differ based on image intensity, $t(37) = -.42$, $p = .675$, $d = .07$. Participants again reported using distraction more frequently while viewing high-intensity images than low-intensity images, $t(37) = 10.21$, $p < .001$, $d = 1.66$. Participants reported using reappraisal more frequently while viewing high-intensity images than low-intensity images, $t(37) = 3.18$, $p = .003$, $d = .52$.

DISCUSSION

The results of Study 2a were consistent with our hypothesis that participants were reporting engagement in acceptance when in fact they had chosen not to use ER. Participants' usage of acceptance was reduced substantially in Study 2a for low-intensity images (25.61% from 62.72% in Study 1) and participants reported watching with no ER 55.79% of the time. Consistent with prior results, participants in Study 2a reported using distraction most frequently while viewing high-intensity images.

The results of Study 2a established that we had a viable experimental structure and gave us a preliminary glimpse of ER choice results with U.S. participants in a four-choice context. Our next step was to validate this structure with an Indian sample (Study 2b) and then directly compare the results between the two cultures (Study 3).

Study 2b

After having determined a successful structure for the ER choice survey with American participants, we subsequently sought to validate this structure on a pilot Indian sample.

Participants

Participants were screened by IP address and self-report to ensure they were currently located in India and were also born there. Twenty India based MTurk workers ($M_{Age} = 34.05$, $SD_{Age} = 10.75$) were recruited to pilot the study.

Procedure

The study was identical to that distributed in Study 2a.

RESULTS

Prior to examining the data, participants who selected more than one ER strategy following the first 1s image presentation were marked as having an “erroneous double ER choice”. Those who had more than two double ER choice selections were removed because it was not possible to determine which strategy participants meant to select. This resulted in 3 participants being removed. Following the procedures of Study 1 and 2, three participants who had more than 2 failed manipulation checks were also removed. This left a final sample of 14 participants ($M_{Age} = 37.07$, $SD_{Age} = 11.61$) in this pilot study.

Table 2.2, ER Choice Proportions: Study 2b India

ER Choice	High Intensity		Low Intensity	
	<i>M</i>	95% <i>CI</i>	<i>M</i>	95% <i>CI</i>
Acceptance	24.77%	15.28% – 34.24%	30.95%	17.23% – 44.67%
Distraction	32.86%	16.77% – 48.94%	13.33%	4.27% – 22.39%
Reappraisal	36.19%	23.77% – 48.61%	17.14%	6.18% – 28.10%
Watch	6.19%	-0.30% – 12.68%	38.57%	22.51% – 54.63%

A two-way repeated measure ANOVA was conducted as in Study 1 and 2a. There was a significant Intensity X ER Strategy interaction, $F(3, 39) = 8.75$, $p < .001$, $\eta_p^2 = .40$. Paired t-tests indicated that the Indian participants reported “watching” high-intensity images to a lesser extent than low-intensity images, $t(13) = -4.89$, $p < .001$, $d = 1.31$. Participants used distraction more for high-intensity images than for low-intensity images, $t(13) = 2.32$, $p = .038$, $d = .62$. Participants also used reappraisal more for high-intensity images than low-intensity images, $t(13) = 2.54$, $p = .025$, $d = .68$. Participants usage of acceptance did not vary by image intensity, $t(13) = -1.00$, $p = .336$, $d = .27$. Within high-intensity conditions and low-intensity conditions, distraction usage and reappraisal usage did not significantly differ, both t ’s $< .56$, both p ’s $> .59$, both d ’s $< .15$.

DISCUSSION

The pilot indicated that the structure of the test was effective with an Indian sample. Further, there did appear to be culturally driven differences in ER choice as compared to the American sample in Study 2a. Most notably, the differences between distraction and reappraisal were not significant in high or low-intensity conditions for the Indian sample, whereas in the U.S. these distinctions have been replicated in multiple studies. Thus, we decided to obtain a larger Indian sample and directly compare the results to a separate sample of American participants in Study 3.

STUDY 3

After validating our experimental framework among both countries and detecting the presence of a preliminary culture effect, we sought to compare ER strategy choice between the two countries (Study 3a) and test whether it was in fact religious differences driving the effect (Study 3b).

Study 3a

In Study 3a, we compared ER choice between a new, larger Indian sample and a new American sample.

Participants

One hundred eight MTurk workers were recruited from either India ($N = 51$, $M_{Age} = 34.14$, $SD_{Age} = 7.91$) or the U.S. ($N = 57$, $M_{Age} = 36.70$, $SD_{Age} = 11.78$).

Procedure

The procedures were identical to those of Study 2.

RESULTS

Following the same procedures as Study 2, the number of erroneous double ER choice selections were calculated for all participants and participants were removed prior to conducting analyses if they had more than 2 of these mistakes. Four participants were removed from the Indian sample and zero participants were removed from the U.S. sample based on this standard. The numbers of failed manipulation checks were then calculated for each of the samples. Eighteen Indian participants were removed for having more than 2 failed manipulation checks and 5 U.S. participants were removed based on this criterion. These removals left a final sample of 29 India-based participants ($M_{Age} = 34.93$, $SD_{Age} = 8.24$) and 52 US-based participants ($M_{Age} = 37.38$, $SD_{Age} = 12.09$).

Table 3.1, ER Choice Cultural Comparison: Study 3a

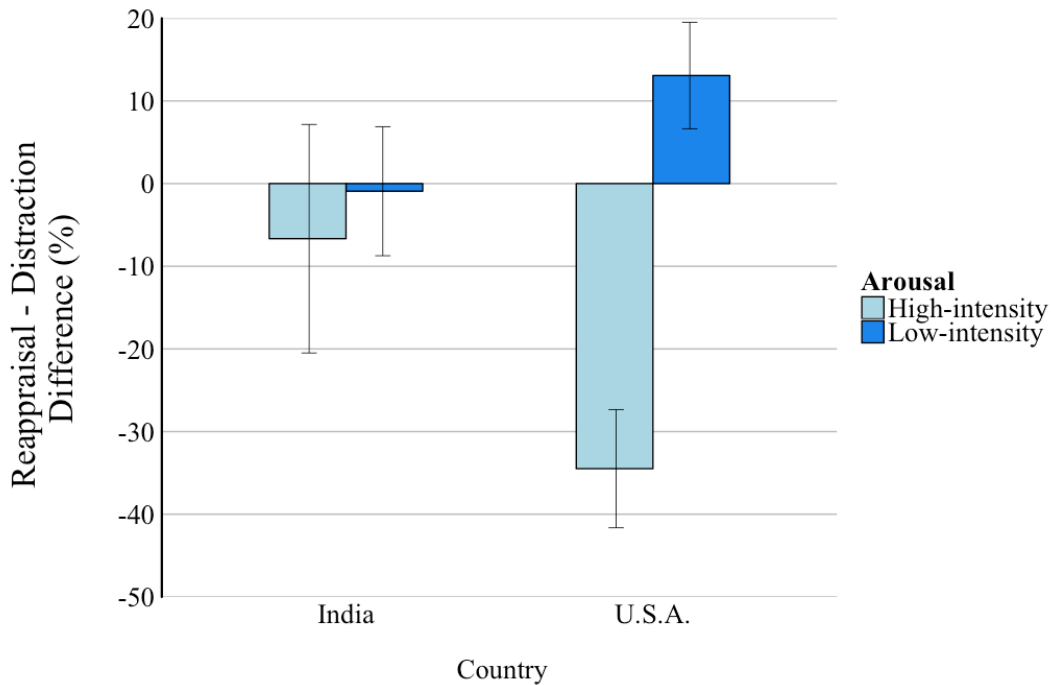
High-Intensity Images				
	India		U.S.A.	
ER Choice	<i>M</i>	95% <i>CI</i>	<i>M</i>	95% <i>CI</i>
Acceptance	22.07%	14.28% – 29.86%	18.08%	13.60% – 22.55%
Distraction	37.93%	29.57% – 46.29%	55.38%	50.21% – 60.56%
Reappraisal	31.26%	23.56% – 38.97%	20.90%	17.26% – 24.54%
Watch	8.74%	3.44% – 14.03%	5.64%	1.57% – 9.71%

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Low-Intensity Images				
	India		U.S.A.	
ER Choice	<i>M</i>	95% <i>CI</i>	<i>M</i>	95% <i>CI</i>
Acceptance	31.95%	25.58% – 38.33%	30.38%	24.52% – 36.25%
Distraction	14.02%	8.71% – 19.33%	8.97%	6.38% – 11.57%
Reappraisal	13.10%	8.24% – 17.97%	22.05%	16.59% – 27.51%
Watch	40.92%	31.15% – 50.69%	38.59%	30.30% – 46.88%

As illustrated in Table 3.1, there were stark differences between the ER choices of Indian and U.S. participants and these differences varied across image intensity. Most notably, the sharp distract in high-intensity/reappraise in low-intensity distinction that has been replicated in multiple Western-focused studies was not present in the Indian sample (Figure 3.1). Instead, there was no significant difference between Indian preference for distraction or reappraisal in either high, $t(28) = 0.99$, $p = .332$, $d = .18$, or low-intensity conditions, $t(28) = 0.24$, $p = .811$, $d = .04$.

To investigate the differences between the U.S. and Indian samples, a three-way mixed factorial ANOVA was conducted with Image Intensity and ER Strategy as the within-subject factors and Country (India, US) as the between-subject factor. There was a significant Image intensity X ER Strategy X Country interaction, $F(3, 237) = 7.06$, $p < .001$, $\eta_p^2 = .08$. Next, two-way mixed ANOVAs were conducted to examine the Country X ER Strategy Interaction for the high-intensity and low-intensity images separately. For the high-intensity images, there was a significant Country X ER Strategy interaction, $F(3, 237) = 6.95$, $p < .001$, $\eta_p^2 = .08$, whereas the Country X ER Strategy interaction was not significant when only examining the low-intensity images, $F(3, 237) = 1.30$, $p > .05$, $\eta_p^2 = .02$. Independent sample t-tests were conducted to compare the ER strategy usage between countries in high-intensity conditions. Indian participants reported using distraction less frequently than U.S. participants while viewing high-intensity images, $t(79) = -3.79$, $p < .001$, $d = .88$. Indian participants reported using reappraisal more frequently than U.S. participants when presented with high-intensity images, $t(79) = 2.80$, $p = .006$, $d = .65$. There were no country differences in watch for high-intensity images and contrary to our hypothesis, acceptance usage for high-intensity images also did not differ significantly by country, both t 's $< .97$, both p 's $> .3$, both d 's $< .23$. The omnibus Country X ER Strategy interaction was not significant for low-intensity images. However, an independent sample t-test indicated that for low-intensity images, U.S. participants did reappraise significantly more than Indian participants, $t(79) = -2.21$, $p = .030$, $d = .51$.

Figure 3.1 Reappraisal Minus Distraction Within-Group Differences

DISCUSSION

The results of Study 3a supported our prediction that ER choices are moderated by culture, as demonstrated by the significant Intensity X ER Strategy X Country 3-way interaction. Contrary to our expectations, we found that being raised in a culture that espouses a spiritually founded philosophy of acceptance and displays higher rates of fatalistic outlooks does not appear to increase acceptance usage as an emotion regulation strategy. Our prediction that Indian participants would use reappraisal more due to their greater religiosity was supported in the high-intensity condition. However, the U.S. sample reappraised more frequently than the Indian sample for low-intensity images. We believed that religiosity was one cultural feature driving the elevated rates of reappraisal in high-intensity conditions, but wanted to investigate this hypothesis further in Study 3b.

Study 3b

In Study 3b, we sought to determine if Indian participants were in fact interpreting and reappraising images through a religious framework. To do this, we ran another online cross-cultural comparison survey in which we asked new participants to write either reappraisals or descriptions of the same 30 images used in prior studies. We hypothesized that Indian participants would more frequently incorporate religious themes in their responses to the images and more frequently use those themes to formulate reappraisals.

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Participants

One hundred three MTurk workers were recruited from either India ($N = 52$, $M_{Age} = 34.35$, $SD_{Age} = 10.01$) or the U.S. ($N = 51$, $M_{Age} = 35.99$, $SD_{Age} = 9.72$).

Procedure

First, participants were given a brief introduction to what reappraisal was. Next, they were presented with a negatively valenced image and given an example on what a reappraisal of that image might be. After two of such training exercises, the experiment began. Participants were presented with the same 30 images used in prior studies and asked to do three things. (1) They were asked to rate the intensity of negative emotion they felt in response to the image on a scale of 1 (little to no negative emotion) to 9 (extreme negative emotion). (2) They were asked if they were able to think of a reappraisal for the image (yes/no). (3) If yes, they were asked to write a 2-3 sentence reappraisal of the image. If no, they were asked to write a 2-3 sentence description of the image. Image order in the training segment and the experiment segment was randomized.

RESULTS

To compare the high and low-intensity image ratings between Indian and U.S. participants, independent sample t-tests were conducted with Bonferroni corrections. Indian participants reported feeling higher intensity emotion in response to low-intensity images ($M_{low} = 4.50$; $SD_{low} = 0.84$) than U.S. participants ($M_{low} = 3.73$; $SD_{low} = 0.55$), $t(28) = -2.99$, $p = .011$, $d = 1.09$. Indian participants emotional intensity in response to high-intensity images ($M_{high} = 7.02$; $SD_{high} = 1.04$) was not significantly different than U.S. participants ($M_{high} = 6.76$; $SD_{high} = 0.91$), $t(28) = -0.73$, $p = .940$, $d = .27$. Our hypothesis that the Indian sample would incorporate religion more frequently in this exercise was supported. We operationalized this criterion as a participant's response including at least 1 of the 3 words; "god", "soul", or "bless". Upon examining the data, we found that 13 Indian participants incorporated religious themes in their responses or used religion directly as a framework to formulate reappraisals, while in the U.S. sample only 2 participants fit this criterion, $\chi^2(1) = 7.58$, $p = .006$. For example, in response to a picture of a group of crying people at what appears to be a funeral, one Indian participant commented that the deceased was "going to God". In response to a picture of piled skulls, an Indian participant responded that their souls were in heaven. One American participant commented that a man in prison had found God.

DISCUSSION

The difference in religious themes present in people's responses to the photos further supports our hypothesis that religion is a facet of Indian culture that contributes to their more frequent reappraisal choice in a high-intensity context. Some of these responses were reappraisals that were afforded by beliefs about the afterlife. Others expected God to remedy the problems faced in the photograph. Others still were simply supplications for God to intervene. American non-religious reappraisals often involved potential mitigating factors that were not immediately

apparent. Other American reappraisals involved hope for the future—oftentimes regarding help from other people that the subject of the image would receive. Indian participants also reappraised in some instances by discussing the help that the subject of the image would receive from other people. However, when the subject appeared beyond the aid of humans, God was often there to pick up the slack.

General Discussion

In our present research, we first designed and piloted an experimental structure to test participants' ER choices between three common strategies; reappraisal, acceptance, and distraction (Studies 1 and 2). Next, we used this test to compare ER choice frequencies between two highly populous, yet notably dissimilar countries in high and low-intensity negative conditions (Study 3). As anticipated by our first hypothesis, Indian people were significantly more prone to use reappraisal in response to high-intensity negative stimuli than people from the U.S.A. This may be due to Indian religiosity offering satisfactory reappraisal affordances in high-intensity situations where otherwise, there were few. Contrary to our second hypothesis, Indian participants did not show greater preference for an acceptance ER strategy than American participants.

This research demonstrates that the dominant modes of thought that are shaped by culture influence ER choices differently across varying contexts. These culturally driven differences can be traced at least in part, to the differing content of cognitive reappraisals. Since reappraisal involves actively changing the meaning of events, culturally specific meaning systems such as religion are a fundamental ingredient of this process.

The discovery of cultural differences in ER choice aligns well with the shift from the traditional approach of labeling strategies adaptive or maladaptive, into more recent research that places an emphasis on context-specific ER flexibility (Bonanno, Papa, Lalande, Westphal, & Coifman, 2004; Sheppes et al., 2014). Cultural differences in ER choice suggest that universally “normal” or adaptive strategy selection does not exist. However, the ability to flexibly choose between strategies in response to different situations does appear to be consistent across cultural lines.

This finding has important clinical implications. The DSM-5 (2013) explicitly states that culturally approved responses to stressors are not classified as mental disorders. Thus, medical practitioners must be aware of cultural variation in ER choice in order to accurately diagnose and administer care to non-Western patients. Additionally, if certain cultural attributes facilitate certain ER strategies, clinicians can encourage a focus on these cultural attributes for patients when it is adaptive. For example, if religiosity facilitates reappraisal, clinicians can encourage attention towards the patient's religious beliefs in situations that require repeated engagement and thus, could benefit from reappraisal (Kross, & Ayduk, 2008).

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One limitation of this series of studies is that by surveying English-speaking Indian participants over the internet, our samples were limited to Indian people with ample exposure to Western culture. We believe that if we had access to Indian participants in more rural segments of the population, we may have obtained an even stronger effect. A second limitation of our study is that although we demonstrated a general cultural effect and pointed to one cultural attribute, there are likely multiple drivers that contribute to cross-cultural differences in ER choice. Future cross-cultural studies of ER choice are needed to isolate other specific cultural determinants. Another limitation of the present study is that differences in initial appraisal were not addressed. Prior studies have demonstrated that there is some cultural variability in how people appraise situations (Mesquita & Frijda, 1992; Scherer, 1997; Imada & Ellsworth, 2011). These culturally variant appraisals could factor into different ER choices. Further studies would be required to investigate the role that varying appraisals play into culturally variant ER choice.

While one study series cannot summarize the entirety of ER choice differences between two of the largest and most diverse cultures on Earth, this research suggests that ER choices differ across culture and are at least in part, tied to religiosity. That said, India is an extraordinarily populous country and sweeping generalizations cannot be made based on a limited sample size. The next step for future studies would be to narrow down subcultural groups within these broader categories and pinpoint additional ingrained modes of thought that are driving ER strategy selection.

Notes

1. For copyright reasons, images used in Figure 2.1 are similar, but not identical to low-intensity images used in the experiment.

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Conflict of Interests:

The author declared no conflict of interests.

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